

Build A Video
Console For Under \$100—
Details Inside

SATELLITE EARTH STATIONS—A LOOK AHEAD

FEBRUARY

1982

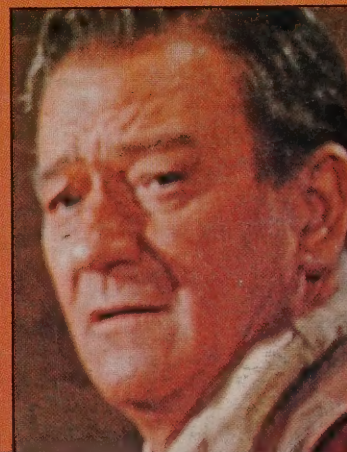
\$1.75 **The How-To Magazine For Home Video**  48172

**Do-It-Yourself VCR Repair ■ Choosing A Camera Tube
Test Reports On RCA's VFT650, Quasar's VH5610 & Sanyo's
Portable System ■ Lighting Gear ■ Westerns On Cassette**

25 WAYS TO SAVE \$ ON VIDEO



**Quasar vs. RCA—they're
both made by Matsushita
but are they both the same?**



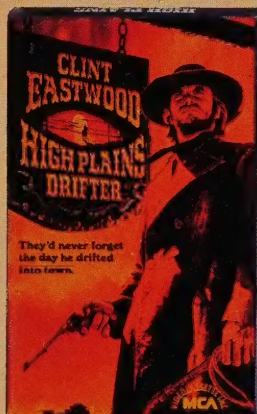


KICK OFF THE NEW YEAR WITH THE

You can look forward to another year of great take-home entertainment. Because MCA Videocassettes has a new lineup of hits that are hotter than ever.

Including the latest Hollywood features like *Continental Divide* with John Belushi. And *Raggedy Man* with Academy Award Winner Sissy Spacek.

Plus *High Plains Drifter*, the eerie, two fisted Western that Clint Eastwood starred in and directed.



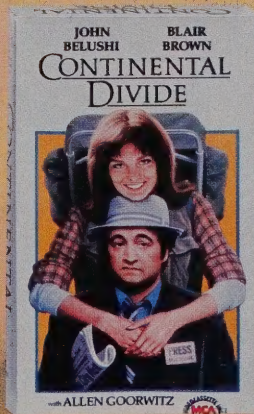
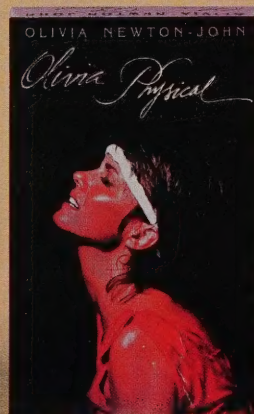


HOTTEST ENTERTAINMENT IN TOWN.

Not to mention *Spiderman* and *Spiderwoman*, two animated features that will catch you in a web of excitement. And *Physical*, the original entertainment extravaganza starring Olivia Newton-John.

Nobody, but nobody, gives you a better lineup of entertainment than MCA.

So kick off the New Year by stocking up at your favorite videocassette store. And get the best in Take-Home Entertainment from MCA Videocassettes.



70 Universal City Plaza
Universal City, CA 91608

© 1982 MCA Videocassette Inc.

Circle #17 on reader service card

VIDEOPLAY

MAGAZINE

The How-To Magazine For Home Video

FEBRUARY 1982

VOLUME III, NUMBER I

FEATURES

Bright Lighting Ideas..... 38

by Robert J. Kerr

A report on video lights sold by Smith-Victor, Acme-Lite and Cool-Lux, and units you can put together yourself.

Newvicon, Vidicon or Saticon: Making the Right Choice... 48

by Ken Elliot

A camera tube is like a car engine. Choose the wrong one, and you're in for disappointment.

The Lowdown on the Sony Betamax Suit..... 52

The recent court ruling says videotaping programs off-air may put you in violation of the law. Here's more on the issue, with news on what's happening in Congress, and the bottom line on where you stand.

Satellite Earth Stations:

Forecast '82..... 54

by Bob Cooper

A forecast of what is in store for home satellite earth stations in 1982, with a look at legal issues and new equipment.

Guide to Satellite Programming Services..... 62

With over 40 services to choose from, there's something for everyone.

How the Westerns Won... 70

by Sue Avery

Hollywood captured the old frontier, brought the saga to the silver screen, and our visions of the settlement of the West will never be the same.

Westerns on Cassette..... 80

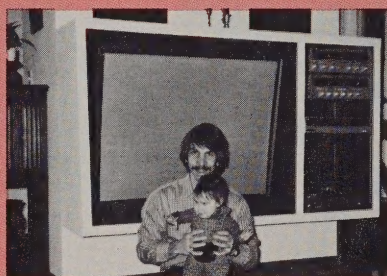
You'll find old and new favorites, from Hopalong Cassidy to Butch Cassidy, and El Dorado to True Grit, available on videocassette.



VIDEOPLAY's Home Video Center Contest Winner

..... 16

Elliot Garber, from Highland Park, Illinois, has won Toshiba's \$1,400 auto-focus camera for placing first in our Home Video Center Contest. You can build his winning entry—a complete home entertainment console which houses a large screen TV, VCR and audio equipment—for under \$100, by following the step-by-step instructions in this issue.



25 Ways to \$ave In Video..... 30

A potpourri of easy-to-follow tips from videocassette storage to shopping tricks, guaranteed to stretch your dollars.

Do-It-Yourself Guide To VCR Repair..... 43

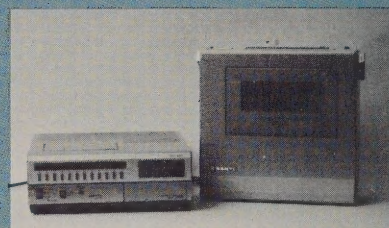
by Ken Elliott

Why pay a technician to make simple VCR repairs? Here's how to troubleshoot your system, with all you need to know about cleaning and replacing the video heads.

PLAYTESTS

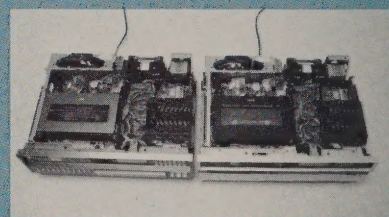
Sanyo's VPR4800 Recorder and VSC450 Camera..... 22

While we wouldn't quite agree with the product literature that touts the VSC450 as "today's most versatile color camera," we'd say the Sanyo portable team features average-to-good performance at a reasonable price.



RCA's VFT650 and Quasar's VH5610TW VCRs..... 25

Both of these top-of-the-line models are manufactured by Matsushita in Japan. Our test report looks into just how identical these two units really are.



DEPARTMENTS

Videoplappourri..... 5

Reviews..... 8

This month, VIDEOPLAY reviews *Total Self Defense*, *Black Belt Karate* and *Professional Techniques in Horticulture*.

Video Response..... 11

Questions and Answers.... 13

Previews..... 14

Videofun..... 92

VIDEO PLAY POURRI

Publisher/Editor
Charles S. Tepfer

Managing Editor
Judith Tereno Stokes

Art Director
Janine Carol Wesselmann

Associate Editor
Mary M. Woolf

Editorial Assistants
David B. Stetson
Mary Ann Walsh

Contributing Editors
Tom Borrup
Robert B. Cooper, Jr.
Robert J. Kerr
Ellen Milhan Klein
Suzan D. Prince
Art Ross
Ken Winslow

Production Assistants
Diane K. True
John L. Parkhurst

**Circulation and
Distribution Manager**
Sandy Abrams

Circulation Fulfillment
Catherine Fahey

Reader Service
Marjorie de Bruycker

Advertising Space Sales
Ellen Parker
Lisa Tepfer

Director of Marketing
Irwin Ungerleider

Office
51 Sugar Hollow Road
Danbury, CT 06810
Tel.: 203/743-2120

Try On A Nose For Size

If you're toying with the idea of changing your hairstyle or getting a new nose, "What will I look like?" is probably number one on your list of doubts. Though you can imagine the "new you," there's no way of knowing for sure. The decision would be a lot easier if you could see yourself with the change before submitting to the stylist's scissors or the surgeon's knife.

A new video gadget to be marketed by Quasar will put an end to the "what ifs" experienced by consumers contemplating a cosmetic change. Called Stylesetter, the unit superimposes the new hairdo, nose or pair of eyeglasses on a color television picture of the customer, so he can actually see himself as he would appear after the change. The Matsushita-manufactured device, which is now being sold to Japanese beauty parlors, will make its U.S. debut in late 1982 or early 1983. Quasar will initially look to sell

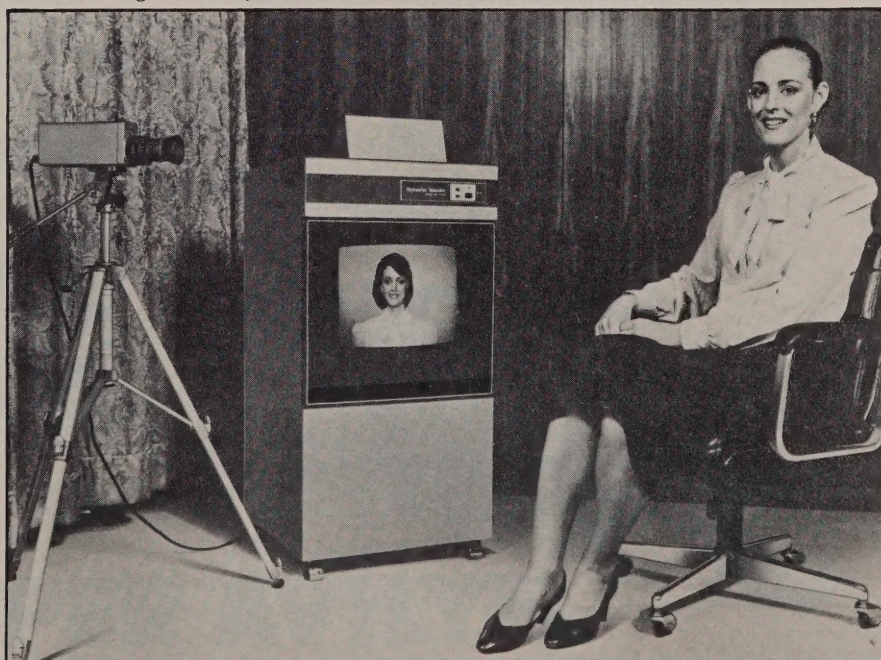
the Stylesetter to hairstyling salons, plastic surgeons and opticians; the price will be about \$5,000.

This is how it works. The customer poses in front of a camera that projects his or her image onto a screen. The image is "frozen" and stored on a thin, rotating sheet memory, and the fun of "trying on" begins. A plastic surgeon, for instance, places specially designed cards containing photographs or drawings of noses over a monochrome camera lens on top of the unit. The patient's image (from the sheet memory) and the superimposed image (from the lens) are combined in a video synthesizer and displayed on the screen. Then the doctor and the patient can decide which nose looks best!

In addition to hairstyling chains, plastic surgeons and opticians, Quasar hopes to sell the machines to department stores, so customers can try on wardrobes without ever entering the fitting room. It also hopes for more serious applications, such as police departments being able to create more accurate identification pictures of crime suspects.

(continued on next page)

With Quasar's Stylesetter, you'll be able to "try on" different hairstyles before submitting to the stylist's scissors.



Odyssey² "Conquers The World"

Swept-wing fighters stream in on the glimmering rays of the early morning sun, their destination vividly etched on cockpit radar. As the aircraft break the plane of the Continental coastline, landing craft make ready to unleash their armored fury on the beach below. Their

conquest is a virtual certainty. No, this is not a prediction of World War III. It's *Conquest of the World*, a new video game for Odyssey², from N.A.P. Consumer Electronics (formerly Magnavox).

The perfect outlet for video game enthusiasts with an uncontrollable



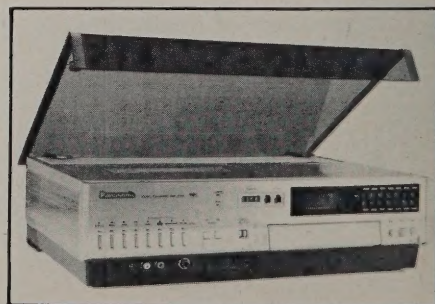
urge to rule the world, *Conquest* promises to enthrall even those less intent on global domination. It's a game of the negotiations and alliances needed to increase the power base of one's "homeland"; when the game ends, the country with the strongest Power Base Record is the victor. *Conquest* follows *Quest for the Rings* in Odyssey's Master Strategy Series.

The game's power base values, assigned to each country, are based on a formula created by a former deputy director of intelligence for the C.I.A. $\text{Perceived Power} = (\text{Critical Mass} + \text{Economic Capability} + \text{Military Capability}) \times \text{Strategic Purpose} + \text{National Will}$. The 43 principal countries on the game board map have been divided into 11 "politectionic" or geo-political zones, and altering the power base unit weightings among countries can recreate the geo-political arena of World War II, or take players into the 21st century. The first player (country) to win the majority of three battles wins the war. Each player begins a war with 2,500 on-screen energy units; a player who exhausts his energy units automatically loses the war. The war can be fought by two to six players.

VCR Cover-Up

For those who find taking a VCR's dust cover on and off annoying, Pyramid Manufacturing has come up with a new protector, reminiscent of those common-

(continued on page 12)



LOWEST PRICE EVER!

for a
Complete TVRO
System



Low cost system features:

- ★ Prodelin 3 Meter Antenna
- ★ R L Drake Receiver
- ★ 120° Amplica LNA
- ★ Scaler Feed Horn
- ★ 100 ft. Cable Package

\$2995⁰⁰

\$3495 Individual Price

★ LOWEST PRICES ★ QUALITY COMPONENTS ★ IMMEDIATE SHIPPING ★ FINANCING AVAILABLE

Send for our free brochure. Dealer inquiries welcomed.



NATIONAL SATELLITE SYSTEMS

A division of
SOUTHWESTERN SATELLITE SYSTEMS

A division of S&K Inc.
4800 Pan American Freeway NE Albuquerque, New Mexico 87109
(505) 883-3626

Circle #30 on reader service card

IF YOU'RE GETTING A DISTORTED VIEW OF VIDEO,

it could be your videotape. The wrong tape can give you more than your share of problems. You don't see them at first. But after a few passes through the deck, images begin to swim into each other.

"Snow" creeps into the picture. Colors fade.

What's worse, the slow speeds of super long play act like a magnifying glass on video imperfections, making them pop out even more.

That's not what you were looking for when you sank all that money into your video equipment.

THE SOLUTION IS SUPER AVILYN.

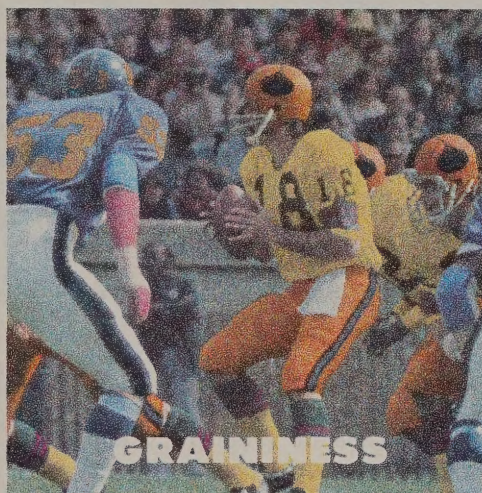
TDK Super Avilyn holds onto its brilliance, time after time. Even under the close scrutiny of the six-hour speed.

Super Avilyn's big advantage begins with its microscopic particles. They're super refined. Even more refined than professional videotape particles. That gives Super Avilyn outstanding frequency response, so images stay crisp and sharp. The perfect alignment of the particles means a high signal-to-noise ratio. That's what keeps the color rich and natural, and keeps the snow away.

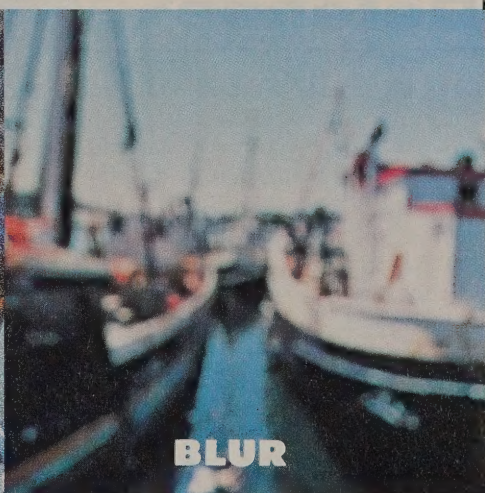
A unique TDK process packs and secures the particles on the tape surface, which is then polished to a mirror finish. Oxide particles don't shed.

Images stay impressively true to the original, without ever showing their age.

Surrounding the tape is TDK's equally impressive super precision mechanism. It keeps



GRAININESS



BLUR

the tape running smoothly, without jamming.

Our view of video goes beyond tape. We've been involved with home video since its earliest stages. Today TDK supplies precision video heads and other component parts to major videodeck manufacturers. Super Avilyn is therefore remarkably compatible with most videodecks.

By now it should be clear. When you look at videotape, you should see into the future. TDK Super Avilyn gives you a lot to look forward to.

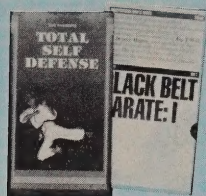
TDK
THE VISION OF THE FUTURE



SUPER AVILYN

Circle #32 on reader service card

REVIEWS • REVIEWS



Two Looks At Self Defense

"If a pocketbook snatcher is out to steal your bag . . . let him!" We've all heard that advice before in this period of defensive living—at least in the cities. The trouble with that advice is that it doesn't fit in with our tradition of self reliance. So many of us would rather learn how to defend ourselves in a pinch. And, since so many things made in the Far East are hot sellers here, why not Karate and Judo, the oriental techniques for self defense?

Karate, in particular, is ideal for defense against spontaneous attack because it requires no weapons. Indeed, the word Karate itself means "empty-handed." (Judo in contrast is a way of handling the body to make maximum effective use of leverage and balance, and is not necessarily directed towards self defense.)

Unfortunately, because most American "He men" on the movie screen (and off, like in bars and similar informal arenas) regard straightforward fisticuffs as the way to vanquish an opponent—and because punching someone out is the first thing most little kids seem to learn, Karate is far from our tradition and seems "foreign" to us. Two videocassette programs that have been issued to remedy this situation are the MasterVision Library's *Black Belt Karate: Part I* and *Total Self Defense*, a Karl Video Corp. release.

Black Belt Karate is a no-nonsense, straightforward instructional program—or rather programs, since it consists of a 60-minute compilation of three programs originally broadcast by public TV station WOSU in Columbus, Ohio. In it, Jay T. Will, billed as a seventh degree master in Karate, slowly and repeatedly illustrates each of the



In Total Self Defense, the "victim" seems able to ward off any attacker.

basic Karate positions, or "stances" and moves. He explains each move, shows how to do it right, and then goes over it again in the context of a confrontation with an adversary. There is no rushing through the repertoire of moves here, each is reviewed before Mr. Will goes on to the next move. (Some of the reviews served to introduce the separate programs when they were broadcast. Including them is okay, but couldn't the other redundant program intro business have been edited out?)

The various moves taught in this cassette include the inward block, the snap kick, the chop, the wheel kick, the back fist, and more. The slow motion setting on the playback ma-

chine can certainly be used to advantage with this cassette, especially during the assailant sequences, when Mr. Will uses a variety of moves to fight off a two-handed choke from the rear, and other attacks. At these times, he seems to bring a bewildering array of moves into play, not always easy to keep up with. These peeks into the real thing also indicate that speed and certainty of execution are imperative in using Karate successfully, and this takes practice, lots of it. So it would be wrong to believe that you could learn Karate well enough to defend yourself by merely watching this cassette.

But if you desire to learn the basics of Karate, it would be hard to imagine a more thorough and painless way than to use *Black Belt Karate: Part I*. The cassette is available at video stores for \$54.95 in the Beta format and \$59.95 in VHS.

Incidentally, the MasterVision Library includes a whole range of special interest subjects, from Gardening to Body Building, Astronomy, Language Development, Woodworking, Black Heritage, Classic Drama, History and more. Look for the review of *Professional Techniques in Horticulture*, also in this issue.

KVC's *Total Self Defense* is a three-part program that delves into home protection, personal safety, and finally Karate for self defense. The complete

Karate expert J.T. Will demonstrates various moves in Black Belt Karate.



REVIEWS • REVIEWS

program, which is about 45 minutes, uses a variety of formats to cover each area. One part is an interview, which reviews some types of smoke detectors, door locks, burglar alarms, etc., and also delves into what constitutes self defense, in the legal sense. Not very thorough, nor even helpful since there are no comparisons between various types of devices, cost ranges, and other similar information that one usually expects from a review of this sort.

The second part of this program emphasizes what a woman can and should do to protect herself from assault in case of purse snatching, a frontal attack, rape attempt, etc. While there is little doubt that the presenter on the cassette would handle herself well in an attack by anyone, I can't say that her demonstrations of self defense were reassuring; the "assailant" seemed so helpless.

The last part of this show is billed as instruction on the basic martial arts of Karate. The instructor gives a brief display of what he calls "Hollywood Karate," replete with high jump kicks and flailing of arms, but then he gets down to the serious business of street Karate for personal protection.

This is where the demonstration becomes especially superficial. There is a lot of talk about a zone system of defense, and the instructor demonstrates what types of Karate moves are suitable for staying out of range of an assailant and how to strike when you are closer to him. But the whole presentation is very casual and carried on at about the same level as you might see during the "serious" part of an afternoon television talk show.

I happen to believe that making the decision to resist an attack from a would-be mugger is a serious one, requiring the certain knowledge that

you will be successful. Otherwise, it could cost you your life. This program does nothing, in my estimation, to impart that kind of knowledge.

Total Self Defense by KVC is sold for \$49.95 on Beta and VHS. ☆

— Paul Daniel



J. T. Will and assistant demonstrate the snap kick in Black Belt Karate.

Horticulture Hints

We took a look at a program in MasterVision's *Professional Techniques in Horticulture* series; this one is divided into three sections: *Pruning Practices at the Brooklyn Botanical Garden*; *The Art of Training Dwarfed Potted Trees*; and *Nature's Colors—The Craft of Dyeing with Plants*.

Indeed, *Pruning Practices* is a how-to segment. Throughout its 30 minutes, the viewer is instructed on how to prepare flowering trees and shrubs for winter and spring, how to prune magnolia trees, rose bushes, St. John's wort, orange eye butterfly bushes, rhododendron, forsythia, lilac bushes, holly and various hedge species.

The reasons for, and means of pruning are discussed. You'll learn how to cut a magnolia, the types of tools to use, whether hand or power shears are advisable in given instances, how to prune a rose bush for winter, post-operative treatment for trees wounded by the removal of major limbs, and how to rejuvenate certain plants from

season to season. All of this in just 30 minutes!

After we have learned a little bit about how to prune a great many different species of woody plants, the program suddenly shifts gears. We're taken to the Brooklyn Botanical group's Japanese garden—perhaps as a measure of comparison to our own meager horticultural achievements. A brief discussion of the philosophy, designs and techniques of pruning in oriental gardening ensues. And we do see some exquisitely pruned foliage. There is a demonstration of Japanese garden shearing techniques, and we are told that pruning in the East is both an art and an expression of philosophy.

In doing this, the program tends to overstep its how-to intentions and suddenly places the viewer, who presumably has hedge clippers in one hand and a note pad in the other, in a make-believe garden complete with philosophical and artistic roots. The result is a segment that doesn't fully accomplish its how-to task, because

its intentions are split between instruction and exhibition. It attempts to join how-to with aesthetics and thereby misses its mark.

Be forewarned; this segment of the cassette will appear rather dated. In fact, the copyright is 1966. Make no mistake about it, this is not a new program, but rather a taped version of a 1966 16mm film. But we suppose pruning practices haven't changed all that much in 15 years. The voice-over narration and melodic background music were both slightly muted.

In short, after watching this portion of the tape, you will come away with one solid bit of knowledge. But to make sure you don't miss the moral, the narrator sums it all up in his parting line: "A well-groomed garden is a well-pruned garden."

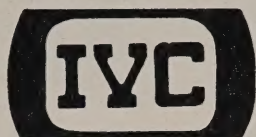
The next segment of the tape, *The Art of Training Dwarfed Potted Trees*, is also presented by the Brooklyn Botanical Garden. Touting a new producer, director and photographer, it succeeds at what *Pruning Practices* only attempted—to be instructive and explain an art form—Bonsai.

While this segment is shorter than the first, the origins and art of Bonsai are traced from the Middle Ages in Japan to the present day. One learns

(continued on page 95)

"THE GREAT ALTERNATIVE"

GENE MULLENAX, PRES. RON MOSELY, V.P. TOM HUNT, V.P.



INTERNATIONAL
VIDEO
COMMUNICATIONS, INC.

4005 Landski Drive
North Little Rock, AR 72118

DEALER DISTRIBUTOR ADVANTAGES:

- PRODUCT
- ON-HAND TRAINING
- SERVICE
- ADVERTISING

SPECIAL MODULATORS

\$79⁹⁵

RETAIL 149⁹⁵

12 MONTH WARRANTY
QUANTITY 10 OR MORE

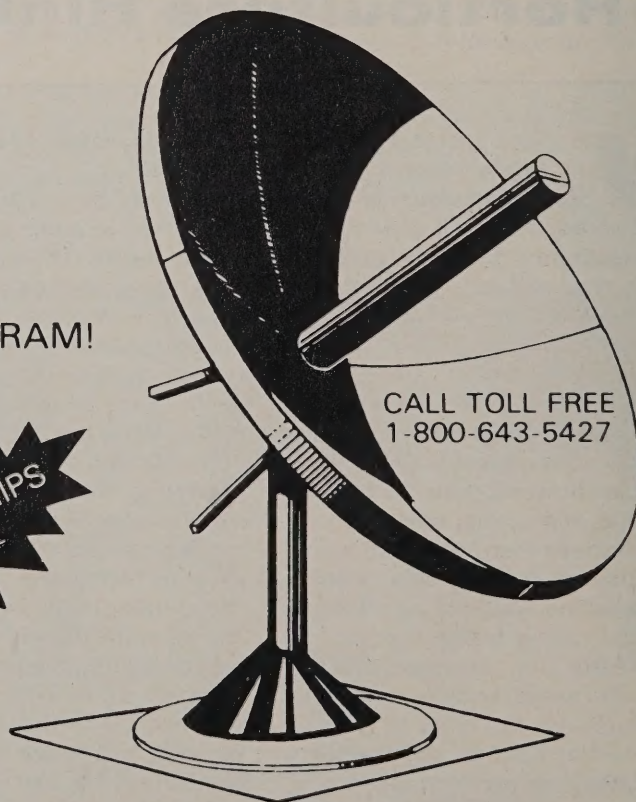
DISTRICT MANAGERS:

- TOM HUNT
NATIONAL ACCOUNTS
- DAVE MULLENAX
WESTERN U.S.
- RANDY BUTTS
CENTRAL U.S.
- BILL LITTLE
EASTERN U.S.

EXCLUSIVE DISTRIBUTOR PROGRAM!

CALL TOLL FREE
1-800-643-5427
OR
501-771-2800

**DISTRIBUTORSHIPS
AVAILABLE**



MANUFACTURER WHOLESALERS AND DISTRIBUTORS



VIDEO

RESPONSE

SINCERE THANKS

TO THE EDITOR:

I wish to express my sincere thanks for publishing my letter in the July issue of *VIDEOPLAY*. A VHS videocassette recorder had been donated to the boys' school of which I am principal, and I had appealed to your readers for help, as tapes are not available here. Thanks to their generosity, I now have several hours of tape.

This is a boarding school in a remote African Village. As we do not have a school hall, the television set is watched outdoors by the 600 boys (and teachers and local passers-by). The video has opened up new worlds of education and enjoyment. We would like to say "asante sana" (in the Swahili language), "sincere thanks," to your kind and thoughtful readers.

M. BRODERICK

St. Patrick's High School
P.O. Box 310
Iten, Kenya
East Africa

BUYER BEWARE

TO THE EDITOR:

I am a videophile of three years and am asking you to log this complaint so that others won't get "burned" as I have. My background is in electronics design, but currently I'm in business management.

To get to the point, let's talk about accessories and their true quality. I want to go on record saying that the accessories I have purchased from Showtime Video Ventures have worked for over two years without fail, and have performed beyond my hopes. The people at Showtime are courteous, and their helpful attitude has been a ray of light in the vast darkness of stupidity. Other companies who have good products include Cable Works and Vidicraft. (Vidicraft at least has a toll-free number, so I can talk to them if there's a problem.)

I've tried and sold products, not to customers, but friends and associates.

There seems to be an influx of "so called" accessories that are nothing but rip-offs.

Take, for example, a stabilizer I recently purchased. The package looked great and the price was low, so I bought two and plugged them in. They worked so poorly that I opened the top to find two very small circuit boards. The workmanship was so bad, it was appalling. I took the dub master to my test bench and this is what I found...

The incoming video was terminated in 175 ohms, not the proper 75 ohms. The video output was only .4 volts by design, instead of the necessary 1 volt. The built-in "so called" stabilizer is so unstable by design, that it loses sync during program changes. The vertical sync which it attempts to reshape is too long sometimes, and too short at other times. Even when the stabilizer's electronics are turned off, it still puts bars on the screen when out of sync.

Their enhancer is one of the most outrageous rip-offs I've ever seen in the industry. It is a high frequency "trasher," degrading details when turned down. When it's turned up, it brings the picture to normal. The workmanship here is also very crude. The fade to black works no better than anything else they've done—they destroy syncs during fades. The differential gain error is 90 percent, the phase error 50 percent.

In another experience with a rip-off outfit, I discovered that a "so called" stabilizer was just a play on words. They claim to have the only stabilizer with an indicator showing when it's operating. I believed them so I purchased one, thinking I was getting something new. I was disappointed to find that it turned out to have an LED power light, the same as everyone has. They are not the only one to have this. It didn't work on mag guard 4, either. When I went to return the unit, there was nothing but a post office box to send it to.

There must be a lot of people out there wanting accessories who think they can't afford a quality product. Let them go ahead and purchase the lower priced junk and discover, as I did,

when they go to return it, there's nothing to send it to but a post office box.

I've learned my lesson the hard way. I hope you will let the other videophiles out there know that there are very few reputable sources for accessories. I don't want to see anyone else get "burned" the way I have.

VINCE DEHAVILAND

Bullhead City, Arizona

WIZARD OF SONY

TO THE EDITOR:

Your article on the Sony HVS-2000 special effects generator (September) just scratched the surface of the amazing wizardry possible. After reading your article and trying the various special effects you came up with, I decided to play around with it myself.

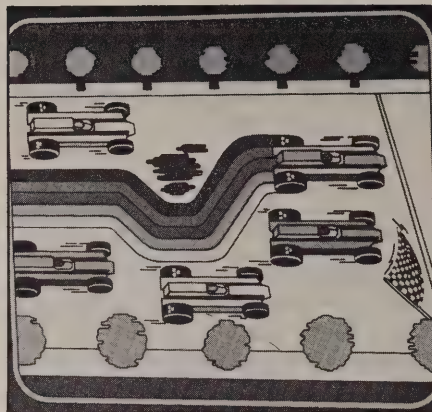


The most exciting effect was discovered—total synchronization of the color and black and white picture allowed perfect superimposition of the pictures without any distortion. If you take the video out and the monitor out and combine them with a "y" input into the recorder, it works! If you play around with the buttons for monitor and video out, you can also add color to the black and white picture. Fade in and out and dissolving all can be done, as well. Superman can actually be made to fly and anyone can pass into and through walls! Combining this with video feedback gives even more exciting pictures.

Thank you for the interesting article—it prompted me to go further, and it seems the ability of this machine is endless.

DR. LAWRENCE KOTLOW
Albany, New York

ly found on audio turntables. The cover, made of rigid acrylic with chrome trim, comes in four sizes to fit all tabletop and portable VCRs. When the recorder is in use, tilt brackets hold the lid up and out of the way; it flips down when the unit is not in operation. Available in stores for about \$35, the cover requires no modification of the videocassette recorder. For more information contact Pyramid at 13127 Harper Ave., Detroit, MI 48213.



Coming Soon: Grand Prix And Barnstorming For Atari Owners

Would-be pilots and race car drivers will soon be able to give the feats a whirl without leaving the comfort—and safety—of their own homes. Activision, producer of cartridges for the Atari and Sears video games, has come out with *Barnstorming* and *Grand Prix*, new offerings to be available in March.

Barnstorming, based on those daring young men in their flying machines, features a vivid yellow biplane complete with whirring propeller, and a pilot with scarf billowing in the wind. The plane glides over bright green fields against a background of sunset on hills. The player uses the joystick to maneuver his plane over windmills, through barns and around flocks of geese, flying up or down as necessary to avoid obstacles and complete the course in the shortest possible time.



Grand Prix, offering vivid graphics and "you-are-there" sound effects, features brightly-colored formula racing cars which charge down asphalt roads, dodge oil slicks, cross bridges and avoid collisions on the tree-lined roadway. The game's joystick is used as a throttle, brake and steering device. Each game will carry a suggested retail price tag of \$31.95.

YOU CAN BUILD A HOME ENTERTAINMENT CONSOLE FOR UNDER \$100 BY FOLLOWING THE STEP-BY-STEP PLANS OF VIDEOPLAY'S HOME VIDEO CENTER CONTEST WINNER; SEE PAGE 16. BE SURE TO LOOK FOR THE SECOND PLACE WINNER'S PROJECT, IN THE APRIL ISSUE!

"Your customers will come out ahead with a Satellite Video Receiver from Comtech Data."

Richard Desman, SATMAR Satellite TV, Phoenix, Arizona



MODEL 650
FOR SINGLE RE-
CEIVER SYSTEMS
WITH DOWN
CONVERTER
ANTENNA
MOUNTED FOR
MOST ECONOMIC
INSTALLATION

MODEL 550 FOR MULTI-RECEIVER COMMERCIAL SYSTEMS

Ahead in Dependability - Comtech's track record for excellence in satellite communications technology spans over ten years. This expertise is designed into every video receiver.

Ahead in Quality - Twenty four channel broadcast quality video with 6.2/6.8 MHz program demods plus a full year's warranty.

Ahead in Technology - Digital channel select with LED display. Remote control capability. Self-contained LNA power supply.

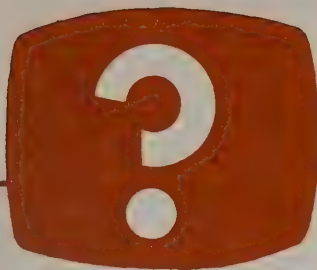
Ahead in Customer Satisfaction - Add it all up and Comtech comes out ahead for those who desire the finest in a "no compromises" modular video receiver that will provide years of trouble-free service.

We are currently expanding our dealer base and your inquiry is invited. Call or write Jeannine Hillier at (602) 949-1155 for immediate delivery from stock.



COMTECH Data Corporation

A SUBSIDIARY OF COMTECH TELECOMMUNICATIONS CORP.
350 NORTH HAYDEN ROAD • SCOTTSDALE, ARIZONA 85257
(602) 949-1155/TWX: 910-950-0085



More on cable TV-VCR hook-ups, blank cassettes, Copyguard and programming

Q. I have recently purchased an RCA 250 videocassette recorder that I'm really enjoying. There is no problem taping regular broadcasts off-air, but I have been told that using my VCR and someone else's, I cannot record a tape due to "vertical sync." How do I overcome this sync, so I can rent a copy of the movie *9 to 5*, for instance, and make a copy to keep for myself? (I have no intention of selling the copy.) What do I have to do, or what machinery do I have to buy in order to accomplish this?

M.R.
Brooklyn, NY

A. For starters, you should know that what you are proposing is illegal. This was recently affirmed by the San Francisco federal appellate court hearing the Sony Betamax suit filed by MCA/Universal and Walt Disney, when it ruled there was never "Congressional intent to create a blanket home-use exception to copyright protection." In other words, your copying the cassette is an infringement on the copyright holder's rights, whether or not you intend to sell the copy.

To prevent VCR owners from copying tapes, professional duplicators are "Copyguarding" or electronically altering the vertical sync signal that helps the VCR lock onto the program. This is why you'll end up with unwatchable "garbage" if you try to duplicate an antipiracy-coded tape.

There are products on the market called stabilizers, which are hooked up between two VCRs, and work by sampling the tape's sync signal and then regenerating a proper one when the sample proves incorrect.

Q. I have followed with interest your recent articles on cable TV hook-ups and convertors, but I'm still a bit confused. I've ordered a Sony SL-2000/TT-2000 portable VCR with wireless remote control. My townhouse has all UHF's converted to VHF (with all VHF channels occupied). HBO is on channel 3 with a decoder.

How do I have to hook this together to have full use of the remote control and the ability to record HBO while watching normal UHF/VHF fare on my rig . . . without having to manually switch between the recorded output (channel 3 or 4) and HBO?

R.B.
Washington, D.C.

A. The easiest and most economical way for you to do this is to purchase a two-way splitter, two-set combiner (two-set coupler connected backwards) and channel 3 trap. Take the signal coming in on the cable and split it with the two-way splitter—sending one half to the decoder and the other to the channel 3 trap. Then, send them both back through the combiner and into your VCR and TV set. Be sure the channel trap you purchase is for channel 3, and that it's at least 40 or 50dB, to assure that the signal reaching the VCR and TV set will be strong enough. You can purchase these items at most electronics supply houses—find out where your local television repair shop buys its equipment.

Q. I have just purchased my first VCR, and am a novice to the world of video. Could you tell me what brand of tape I should be using? I record in the SLP mode and prefer six-hour tape. Thank you.

N.M.
Somerset, NJ

A. Because they're inexpensive, you may be tempted to buy the off-branded or no-name blank videocassettes. But your best bet is to stay away from them, because they're likely to be abrasive, uneven in edge slitting and coating thickness, and prone to flaking. This spells trouble for your VCR, because these characteristics will cause premature video head failure. If you stick with one of the name brand videocassettes, you're more certain of getting optimum performance, without harming your videocassette recorder.

Q. I need your help! I wish to know the names and addresses of producers or distributors of certain types of videotapes. For this, could you please let me know if there are directories which have information on videotapes for education and training, as well as entertainment films made in or dubbed into Spanish?

J.S.
Hialeah, FL

A. One of the most comprehensive directories available is National Video Clearinghouse's *Video Source Book*, which lists and describes titles, and names distributors of videocassettes in the areas of movies/entertainment, sports/recreation, children/juvenile, art, health/science, business/industry, how-to/instruction and general interest/education. The third edition has just been printed, it's hardcover and sells for \$95 (NVC is located in Syosset, NY). You'll find programs dubbed into Spanish in that directory, but it might help you to know that Viacom (New York, NY), Magnetic Video (Farmington Hills, MI), Media Home Entertainment (Los Angeles, CA) and Budget Video (Los Angeles, CA) are among the distributors offering titles in Spanish. For more information on educational video materials, you might try *Educators Guide to Free Audio and Video Materials*, published by Educators Progress Service (Randolph, WI).

Have a question about video? Send it to: Questions & Answers, VIDEOPLAY, 51 Sugar Hollow Rd., Danbury, CT 06810. Questions that are representative of readers' inquiries are selected for this column.

FEATURE FILMS

Magnetic Video has a host of new titles in the offing . . .

Brannigan, featuring John Wayne, Richard Attenborough, Mel Ferrer and Ralph Meeker, is the tale of a Chicago cop (Wayne) who travels to London to pursue a fleeing criminal.

The Garden of Allah is a well-played romance in the Algerian desert, released in 1936. Marlene Dietrich sets her heart on Charles Boyer, but he's hiding his past in a monastery where he's taken his vows.

Rollerball is a look at life in the 21st century, where material comforts abound and a violent sport is considered supreme entertainment. Filmed in Munich and London, the 1975 film stars James Caan.

Hell in the Pacific, starring Lee Marvin and Toshiro Mifune, is the gripping tale of two adversaries—one American, one Japanese—who are the lone inhabitants of a deserted Pacific Island during WWII.

The Spiral Staircase is a superb thriller starring Dorothy McGuire as a mute servant in a strange household which is harboring a murderer.

The Great Escape touts an all-star cast (Steve McQueen, James Garner, Richard Attenborough, Charles Bronson, James Coburn, Donald Pleasence) in the action-packed tale of POWs planning an escape from a maximum security German prison camp.

Hawaii, based on James Michener's novel, stars Max von Sydow, Julie Andrews and Richard Harris in the story

Man of La Mancha**Irma La Douce**

of a missionary's fierce but well-intentioned attempts to bring religion to Hawaii in the 1800s.

Look, too, for **The Adventures of Robin Hood**, **The Russians Are Coming**, **A Thousand Clowns**, **Man of La Mancha**, **The Magnificent Seven**, **Women In Love** and **Irma La Douce**.

MCA Videocassette is rolling out these new titles . . .

The Four Seasons, the 1981 favorite starring Carol Burnett and Alan Alda, is a bittersweet comedy-drama about three couples who are best friends until divorce strikes one of them. The strain of the divorce and its consequences on the relationships within this close-knit group are revealed with humor and humanity in this exploration of the value of true friendship.

The Incredible Hulk is the story of scientist David Banner (Bill Bixby), who, in the course of his research on incredible feats of strength accomplished during times of great stress, is exposed to a massive dose of gamma rays. When he loses his temper he finds himself transformed into a bizarre man-beast nearly seven feet tall. When he returns to normal, Banner enlists the aid of a fellow researcher to help him reverse the process. But their efforts are thwarted by a nosey reporter.

An American Werewolf in London is the spine-tingling contemporary tale of the macabre, which opens with two American students on a walking

tour of Europe trudging across the Welsh moors on a rainy night. Suddenly the air is pierced by an unearthly howl; three weeks later one student is dead and the other is in the hospital.

An Evening With Ray Charles is a spellbinding concert recorded live at the Jubilee Auditorium in Edmonton, Canada. The eleven songs performed by Charles include *Riding Thumb*, *Busted*, *Georgia on My Mind*, *Oh What a Beautiful Morning*, *Some Enchanted Evening*, *Hit the Road Jack*, *I Can't Stop Loving You*, *Take These Chains from My Heart*, *I Can See Clearly Now*, *What'd I Say* and *America the Beautiful*.

How to Watch Pro Football is a step-by-step guide designed to enhance viewers' enjoyment of the game. Seven top coaches—including Tom Landry (Dallas Cowboys), Sam Rutigliano (Cleveland Browns) and John McKay (Tampa Bay Buccaneers)—take you through everything from zone defense pass coverage to offensive strategy at the goal line. A booklet containing the diagrams from a real NFL playbook is included.

Also look for a stereo version of Olivia Newton-John's **Physical**; Clint Eastwood in **High Plains Drifter**, the first in the Man With No Name series; and **Continental Divide**.

Nostalgia Merchant brings its number of John Wayne films available on videocassette to 21 with the following releases . . .



Back to Bataan

Allegheny Uprising, 81 minutes, featuring Claire Trevor and George Sanders, is the story of colonists resisting a corrupt British general in pre-Revolutionary America.

Back To Bataan, 95 minutes, featuring Anthony Quinn and Beulah Bondi, is a solid, action-packed World War II saga about an army officer who organizes Philippine guerillas against the Japanese.

Fighting Seabees, 100 minutes, featuring Susan Hayward and Dennis O'Keefe, showcases The Duke as a two-fisted construction engineer instrumental in organizing the Navy's Seabees (construction battalion) after a defeat in the Pacific.

Tycoon, 128 minutes, features Laraine Day and Cedric Hardwicke in the saga of a tough engineer out to build a South American railroad opposed by a powerful landowner.

Wake of the Red Witch, 106 minutes, features Gail Russel and Gig Young in a sea adventure with Wayne as a captain haunted by his past.

War of the Wildcats, 102 minutes, features Martha Scott and Albert Dekker in the tale of an independent oil wildcatter battling for oil leases with an Oklahoma oil baron.

Look for three new titles from Vid-America. **Sugar Ray Robinson/Pound for Pound** highlights the boxer's career, from his earliest amateur bouts through his memorable retirement at Madison Square Garden. Blow by blow you'll follow the most talked-about fights of the century as Robinson, winner of 170 bouts, battles the great names from boxing's past—including Jake LaMotta, Bobo Olson, Randy Turpin and Carmen Basilio.

Coming on cassette, too, is the film classic **Joan of Arc**, winner of three Academy Awards. Starring Ingrid Bergman, the movie features Jose Ferrer, John Ireland, William Conrad and Ward Bond, and is based on the play by Maxwell Anderson. Running time is 100 minutes.

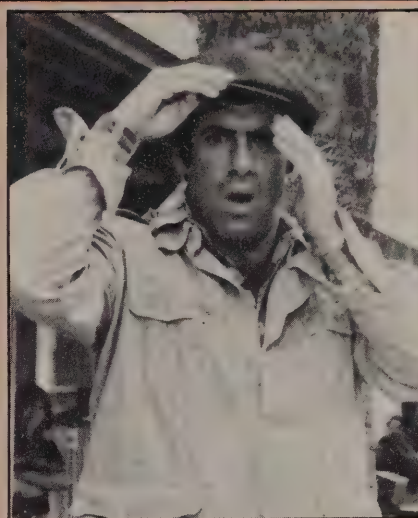
For more spicy fare, try **Emanuelle in America**, as the provocative reporter/photographer sets out to expose the inner secrets of the Jet Set at play. Directed by Joe D'Amao, the 1976, R-rated film pulls out all the stops.

Walt Disney Home Video is bringing out the following titles for children of all ages.

Condorman—Woody Wilkens, an inventive comic book writer, adopts the identity of his own winged creation—Condorman—and suddenly his life explodes into high-flying adventure.

The Devil and Max Devlin—After stepping into the path of an oncoming bus, the deceased Max Devlin strikes a bargain with the devil—Max will be restored to life, providing he can convince three innocent mortals to sell their souls within two months. Starring Elliot Gould and Bill Cosby, this comic fantasy features the music of Marvin Hamlisch.

Treasure Island—Bobby Driscoll, Robert Newton and Basil Sydney star



The Devil and Max Devlin

in this tale of mutiny, mayhem and terror on the high seas, based on Robert Louis Stevenson's story of pirates and buried treasure.

The Shaggy Dog—Young Wilby Daniels utters some magical words from the inscription of an ancient ring and presto—he's a shaggy dog! Starring Fred MacMurray, Annette Funicello and Jean Hagen.

Goofy Over Sports—A hilarious spoof in which the irrepressible Goofy demonstrates how to play football and basketball; how to ski, swim and ride a horse; and the art of self defense.

(continued on page 90)

Treasure Island



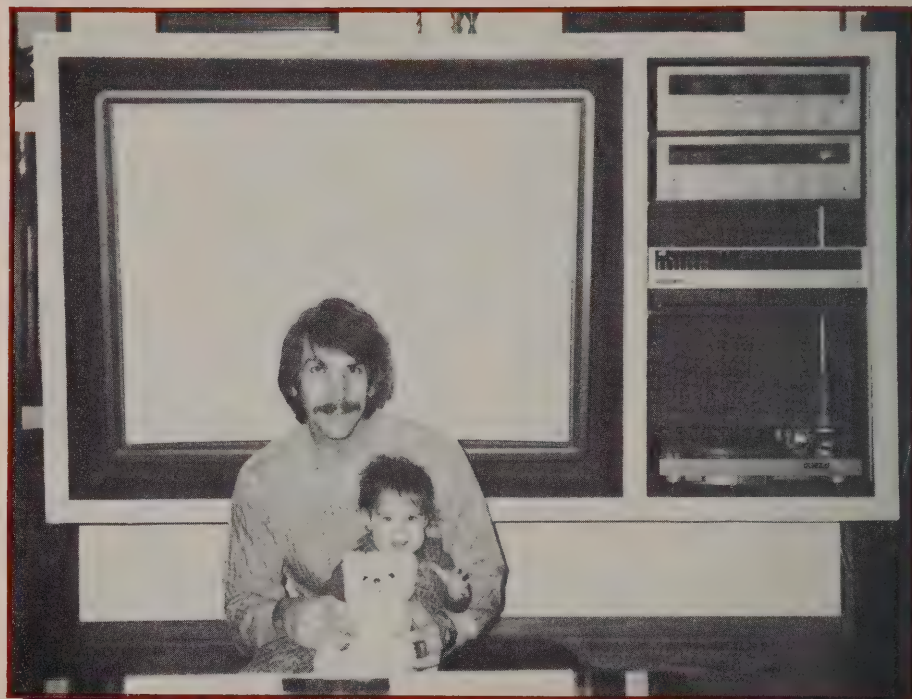


VIDEOPLAY's



FIRST PLACE

Elliott Garber, a dentist from Highland Park, Illinois, has won Toshiba's \$1,400 auto-focus video camera for placing first in VIDEOPLAY's Home Video Center Contest. Here's his winning entry . . . a complete home entertainment console which houses a large screen TV, videocassette recorder and audio equipment. And you can build it for under \$100 by following these step-by-step instructions.



Elliott Garber and his daughter Stacey pose in front of the home video center he designed and built. The project took first prize in VIDEOPLAY's construction contest, and Dr. Garber won a \$1,400 Toshiba auto-focus camera.

Here's what Dr. Garber told VIDEOPLAY about himself, and the home video center he designed and built . . .

It seems like ever since I can remember, I've been unable to pass a store that features electronic gadgetry, such as televisions, stereos, etc., without going in. It was no different with the introduction of the first wide screen projection television. However, there were enough bugs in the systems that I was merely a curious onlooker. In late 1979, there were a number of improvements in the technology that aroused my interest—enough so that I again looked into the

possibilities of purchasing a large screen TV. After seeing the vast improvement in picture quality, I was very anxious to purchase one; but before I could, there were a number of design parameters which had to be satisfied.

First of all, the television had to fit in the room and blend with the environment, yet be placed for optimum viewing. Also, and possibly more important, I needed a room to put it in. I noticed many people put these large screen televisions in the basement because of their size, and so as not to ruin the decor of more formal or elegant rooms. With no basement in my house, I really had only two choices—a small den or the living room.



CONTEST WINNER

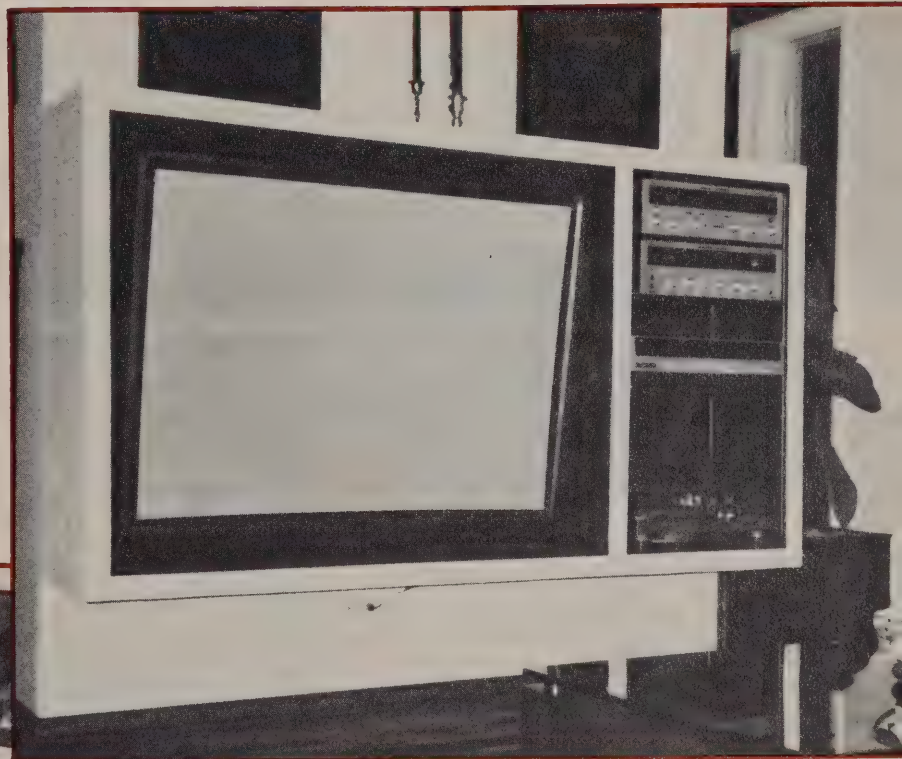
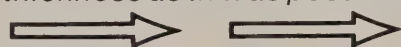
The den seemed the logical choice, but room size and shape were unsuitable. This left only the living room. The room was large enough with ample seating, and if a system could be integrated into the environment without becoming an eyesore, it seemed the best choice.

Opposite the couch, there was a free-standing closet, measuring six feet wide by about seven and one-half feet tall. The wall was originally planned to be mirrored, but could easily accommodate a large screen television. I surveyed the current systems and noted the big swing in projection TVs at that time was toward the one piece cabinet that opened for viewing. Considering this a very difficult style to integrate into the room, I decided a two-piece system was a better alternative. Going this route, I could design the

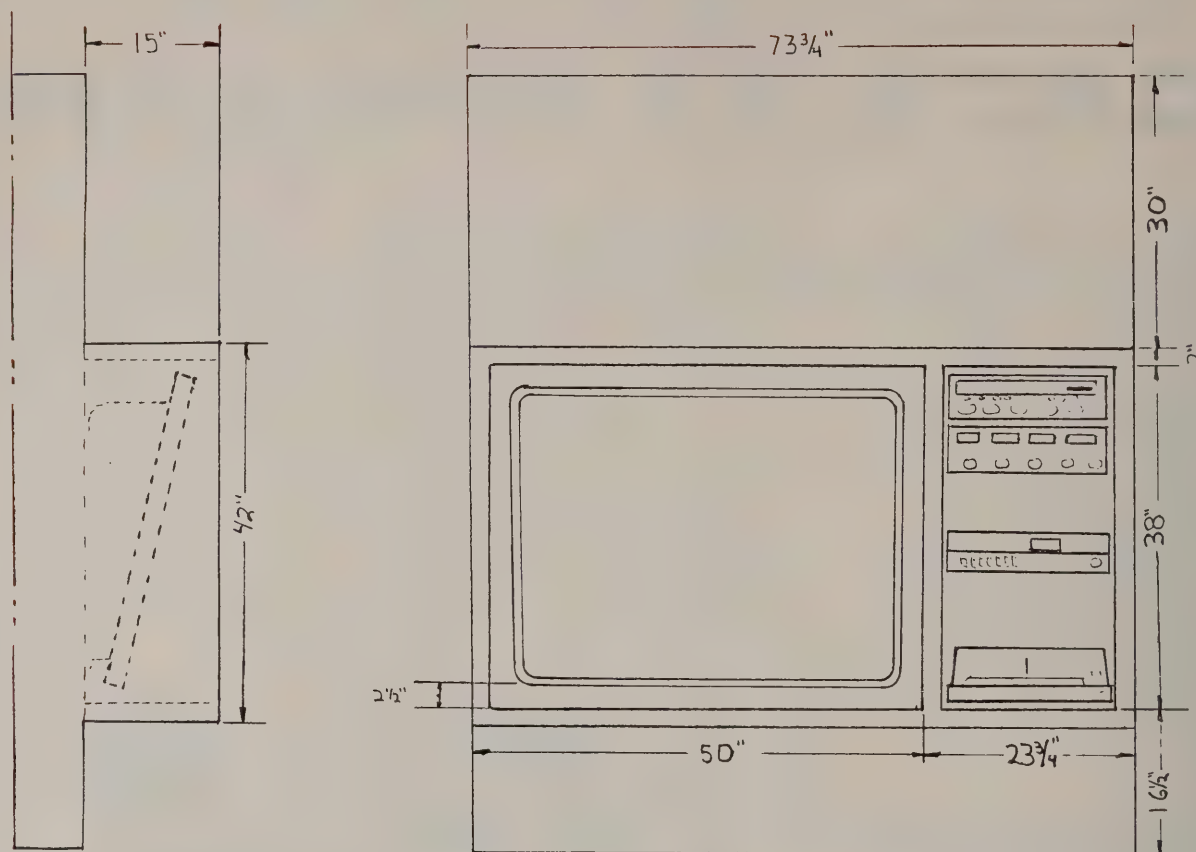
enclosure and avoid paying for cabinetry that would not fit the decor.

I selected the 50" Sony projection system because it was less expensive, the size fit the room perfectly, both the screen and projection unit were well finished with good attention to detail, and I liked the coffee table concept for the projection unit.

In designing the enclosure, I made several rough sketches to combine the stereo components with the large screen. Finally, a scale drawing was made to insure that everything fit together. In building the enclosure, I used 1/4" tempered masonite instead of sheet rock to keep the wall thickness as thin as possible.



The home entertainment console houses a large screen television screen, VCR and audio equipment. The TV's projection system is housed in the coffee-table-like unit in front of the couch.



Side and front views of the home entertainment center show the dimensions to which Dr. Garber's unit was built. The materials needed to build this system are listed on the next page.

This helped maintain complementary proportions between screen size and enclosure size.

Building the system was relatively easy, primarily because of the time spent in the design phase and the scale drawings I had made. It took two Sunday afternoons and three or four hours during the week.

Although I spend much of my spare time building projects such as this home entertainment system, I am a dentist by profession. I feel that anyone can build this system with only basic

carpentry and painting skills. Also, the design is versatile enough to accommodate almost any two-piece projection TV and stereo system. The most important

aspect of getting a good result is to spend enough time in the design phase to insure that the final result is what was originally conceived.

EQUIPMENT CONTAINED IN ELLIOT GARBER'S SYSTEM

Sony 5020 Projection Television
Philco GTE Videotape Recorder
Marantz 2270 Receiver
Marantz 2440 4-Channel Decoder
Sony PS 4300 Turntable

MATERIALS

Quantity	Description	Cost
2	2" × 2" × 10' stud grade	\$ 2.50
5	2" × 2" × 8' stud grade	\$ 4.00
4	2" × 4" × 8' stud grade	\$ 5.00
3	4' × 8' × 1/4" masonite	\$30.00
1 lb.	4d finishing nails	\$ 1.00
24	10" lag bolts	\$ 6.00
36	6" lag bolts	\$ 7.50
1 lb.	washers	\$.75
1 tub	joint compound	\$ 3.00
1 roll	paper tape	\$ 1.00
4	36" shelf brackets	\$10.00

TOTAL \$70.75

INSTRUCTIONS

Position television screen on wall and mark mounting brackets. Measure 2½" above and below, and mark with horizontal lines. Repeat, measuring 2½" left and right of screen and mark with vertical lines.

Construct horizontal members by making two ladders with 2 × 2s. Bolt these together on 12" centers, using 6" lag bolts counter-sunk. Bolt the horizontal members to existing studs at appropriate places using 10" lag bolts. Prop free hanging side to prevent stress to panels during construction. Construct three vertical members in the same way and bolt these to existing studs. Bolt horizontal to vertical members using 6" lag bolts counter-sunk. Cut masonite into 15" strips, cut to proper length dimensions and nail into place using 4d finishing nails. Cut strips 1½" and nail into place at front of unit. Tape and sand all joints. Install hanging brackets for television screen. Mount four shelf brackets to outside walls of component section, making sure to screw rather than nail into 2 × 2 vertical members.

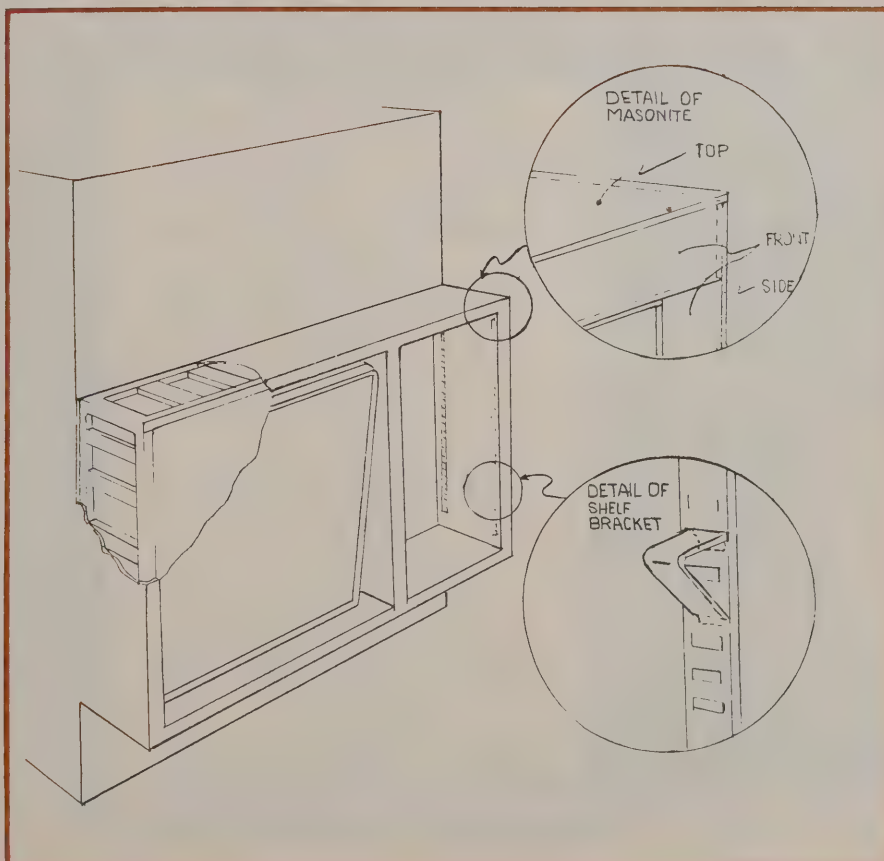
Paint all inside surfaces as well as shelves flat black to give the appearance that audio and video components are floating. Then paint outer portions any lighter color you wish. Install screen and audio/video components.

OPERATION

Television, videocassette recorder and stereo are all interconnected. TV sound as well as VCR sound can be played through the stereo, and programs that are simulcast on FM stereo can be played while watching the video.

The projection unit acts as a coffee table whether in operation or not. The layout is designed to blend with the room, so that while not in use, the appearance of the system does not detract from the other furnishings, but rather contributes to the beauty of the room.

Enlarged detail, showing masonite and shelf bracket construction.



JOIN FOTOMAT'S MO AND PICK FOR

ORDINARY PEOPLE

PICK ANY TWO
INTRODUCTORY MOVIES.

SERIAL
ANIMAL HOUSE
THE ELECTRIC HORSEMAN
THE JERK
COAL MINER'S DAUGHTER
XANADU
THE ISLAND
URBAN COWBOY
FLASH GORDON
ORDINARY PEOPLE
THE ELEPHANT MAN
POPEYE
SHOGUN
ONE TRICK PONY
MAGNUM FORCE
THE EXORCIST
ALL THE PRESIDENT'S MEN
HOOPER
OH, GOD!
"10"
BLAZING SADDLES

MOVIES-BY-MAIL CLUBTM

A PAIR OF HITS

ONLY \$14.95 EACH.

You can buy these incredible bargains through Fotomat's Movies-By-Mail, a brand new club dedicated to bringing you hit films on videocassette at the most rock-bottom prices you've ever seen. In fact, at 50-60% off the regular retail price.

Our movies are from Fotomat's enormous rental inventory, a film library bigger than any other national club. These previously-rented movies are guaranteed to be top-quality and in excellent condition. If you're ever not completely satisfied with a movie, you may return it within 15 days for a free replacement.

Fotomat is able to make this offer because of our unique position as America's only national videocassette rental library. We are your best opportunity to save hundreds of dollars while building your own home video library at prices that can't be beat.

Here's how Movies-By-Mail works:

You select 2 titles for only \$29.90 the pair (plus \$3.95 postage and handling). And you simply agree to buy 4 more movies over the next year—at prices starting as low as \$19.95 each.

Every 6 weeks you'll receive a free list of movies to choose from. Coming up, we have 1941, The Blues Brothers, The Incredible Shrinking Woman and Dracula, among many others.

Ordering is quick and simple: just call Movies-By-Mail toll-free at 800-345-8500. (In Pennsylvania: 800-662-5180.) And we'll send your movies out immediately.

Or, you may handle all your transactions by using the order forms available to members.

So check off the two hits you want and fill out the coupon below. You'll be on your way to saving big bucks on the best movies.

Which will really make these hits something to remember.

Yes, please enroll me in Fotomat's Movies-By-Mail Club and rush my 2 introductory movies listed below. As a member of the Club, I agree to purchase 4 more movies during the next year.

CHECK ONE: ☐ BETA ☐ VHS

TITLE _____

TITLE _____

Enclosed is a check or money order (please do not send cash) for \$33.85 (\$29.90 plus \$3.95 postage and handling). Make your check payable to: Fotomat's Movies-By-Mail P.O. Box 1199, Asbury Park, NJ 07712. Add sales tax where applicable.

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Required for Credit Card Orders:

Please bill my ☐ Mastercard ☐ VISA

ACC'T NO. _____

EXP. DATE _____

SIGNATURE _____

You may also join by calling toll-free at: 800-345-8500. (In Pennsylvania: 800-662-5180.)

FOTOMAT'S MOVIES-BY-MAIL CLUB

VIDEOPLAYTEST



Sanyo's Portable Beta System:

The VPR4800 Recorder and VSC450 Camera

Sanyo Electric, manufacturer of everything electronic, from television sets to calculator-pedometers, has added its first complete portable Beta video recording system to its video lineup.

The Recorder. The second lightest Beta portable available (the new Sony beats it by three pounds), the Sanyo **VPR4800** weighs 12.8 pounds with its NiCad battery pack installed. It records and plays in the Beta II or Beta III modes, offering three or four and one-half hours of recording time on an L-750 cassette. A special feature of the **VPR4800** is its nine-times-normal forward and reverse picture search and other special effects that work at *both* operating speeds. Like all current VCRs, the Sanyo automatically adjusts its playback speed to the recording speed used and has a tracking control for precise adjustment (when needed) to play tapes recorded on other Beta decks. An external antenna/VCR switchbox lets the user select the VCR or antenna signal when the companion tuner-timer is not used.

The deck provides the usual three power options: AC with the deck connected to a Sanyo tuner/timer or AC adaptor; DC from a car battery; and DC from the recorder's internal rechargeable NiCad battery pack. Incidentally, the new nickel cadmium battery packs cut recharge times dramatically — our sample's recharged in 56 minutes.

Sanyo has replaced the usual clumsy plug-and-socket battery connection

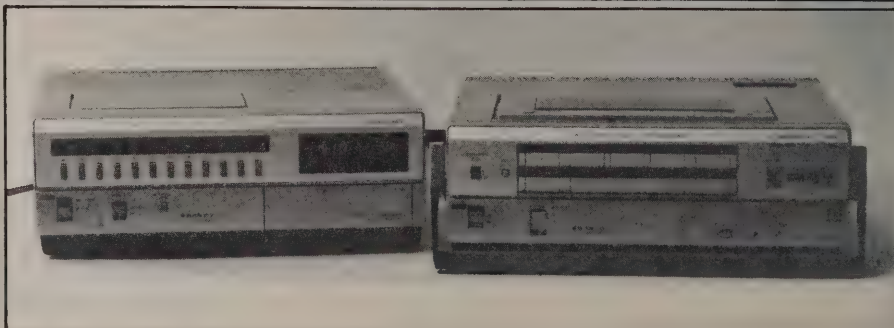
with a terminal stud design that simplifies insertion. Used with the new color camera, it powered 63 minutes of continuous recording. When the power switch of the **VTT481** tuner/timer is off, the VCR's built-in anti-moisture (DEW-elimination) heater functions.

Two rows of soft-touch buttons, each with a red or green indicator, control the deck's functions: RECORD, REWIND/REVIEW, PLAY, PAUSE/STILL, AUDIO DUB, STOP and FRAME ADVANCE. To their left are an operation-lock switch, which safeguards a recording-in-progress, and a record-lock button, which must be pressed just before recording. The latter prevents accidental recording in the same way that other Beta one-button-record VCRs demand you go through STOP

first. To protect the tape, the deck shuts off automatically when a pause exceeds four and one-half minutes. The LED battery indicator, DEW lamp and four-digit mechanical counter with memory are to the right of the function controls. On the lower front panel are the power switch, eject lever, speed selector, tracking control and jacks for a mike, remote control, and earphone.

Except for the 14-pin camera socket on the right, all other connections are made to rear terminals which are covered by a plastic flap during portable use. A standard-length coaxial RF cable and a shorter, fatter tuner/DC input cable connect the VCR and its companion Sanyo tuner. There are also audio and video inputs and outputs and an RF output.

Sanyo's VPR4800 videocassette recorder and VTT481 tuner-timer can be purchased separately. The price of the portable package comes to \$1095.



The Tuner/Timer. Though priced separately at \$300, the Sanyo **VTT481** is the intended companion tuner/timer for the **VPR4800**. It has 12 soft-touch, randomly-accessible channel selectors, each one corresponding to a set of controls which can tune it to receive any available VHF or UHF (but not mid- or super-band cable) channel. The tuning set-up procedure is similar to that used by all of today's decks.

The controls for the 12-hour a.m./p.m. clock and five-event/two-week programmable timer are set in a drawer that slides out when pressed. Each of the five events can be a daily or a one-shot entry; and the contents of a daily entry remain in memory from week to week until you clear it manually.

Although the programming basics are similar to other timers—you enter the start day and time, desired channel and stop time for each entry—there are some special conveniences which deserve a mention. For example, the time display always reads 12 PM (noon) initially; entering an evening start time (how many morning programs do you expect to enter anyway?) requires fewer presses of the hour button than if you were advancing from 12 AM (midnight). The day display starts with the current day of the week, not Monday, and the stop time equals the start time until you advance it. However, the timer micro-processor is picky about the order of entries and will flash an error message if you don't enter the stop time last.

We were told by the operating manual that we could expect an error readout when programs overlapped, but we didn't get one. Incidentally, the tuner/timer has a battery back-up to preserve the clock and timer settings during 20-minute power interruptions; and the fluorescent display offers a choice of three brightness levels.

The Remote Control. The Sanyo **VPR4800** comes with a lightweight multi-function remote control whose 17-foot cable attaches to a front jack. Provided the power is on and the manual VCR/TV switch is set appropriately, the remote lets you record (there's a record-lock button here too), play, search, rewind, fast forward, frame advance and stop.

Operation. We have a few complaints about the generally commendable human engineering of the Sanyo portable system. The tuner section has a single F-connector antenna input, so you'll need to buy a coupler to accom-

Sanyo's Beta Recording System

The Recorder: Model VPR4800

Tape format: Beta

Record/playback time with L-250 cassette: 60 min. (BII), 90 min. (BIII)

Record/playback time with L-500 cassette: 120 min. (BII), 180 min. (BIII)

Functions: Record; Play; Rewind/Review; Fast Forward/Cue; Pause/Still; Frame Advance; Audio Dub; Stop

Tape counter: Four-digit mechanical with memory

Special effects: Nine-times-normal picture search, still, frame advance (BII/BIII)

Remote functions: Record; Play; Pause/Still; Fast Forward/Cue; Rewind/Review; Frame Advance; Stop

Indicators: Dew, battery, power on, timer

Other features: Moisture-elimination heater; transport functions controllable from VSC450 camera

Fast forward/rewind time: L-250—about 80 sec./L-500—about 160 sec.

Video horizontal resolution: 240 lines (BII/BIII)

Video signal-to-noise ratio: 45dB (BII/BIII)

Audio signal-to-noise ratio: 40dB

Audio frequency response: 40-8000 Hz \pm 6dB (BII)
500-5000 Hz \pm 6dB (BIII)

Dimensions: 10 $\frac{3}{4}$ " (W) \times 4" (H) \times 10 $\frac{1}{2}$ " (D)

Weight: 8.7 pounds (without battery)

Power consumption: 9.6 Watts

Accessories: Ten-function remote control; 300/75 ohm matching transformer; VHF/UHF signal splitter; antenna/VCR selector; L-250 videocassette; battery pack; earphone

Optional accessories: VCA485 AC adaptor/battery charger; NP-1 rechargeable battery pack; VCP48 shoulder carrying case; VTT481 tuner-timer

Suggested retail price: \$795

The Tuner-Timer: Model VTT481

Channel selectors: 12 electronic pushbuttons for VHF channels 2-13, UHF channels 14-83

Timer: Five event/two-week; any event may be daily

Dimensions: 10 $\frac{3}{4}$ " (W) \times 4" (H) \times 10 $\frac{1}{2}$ " (D)

Weight: 6.8 pounds

Power consumption: 60 Watts

Suggested retail price: \$300

The Camera: Model VSC450

Scanning system: EIA standard 525 lines, 30 frames/60 fields/sec.

Pickup system: $\frac{2}{3}$ " vidicon, differential separation system

Lens: 12.5-75mm, f/1.4

Minimum focus: 7.5mm (macro mode)

Zoom: 6X, two-speed power

Viewfinder: Electronic, with indicators for white balance adjustment, low battery underexposure, record and record-pause

Microphone: Four-position boom

Illumination: 10-20,000 foot-candles

Special features: Remote control of VPR4800 VCR functions

Horizontal resolution: 250 lines

Video signal-to-noise ratio: 45dB

Connector: 14-pin

Dimensions: 3 $\frac{3}{8}$ " (W) \times 10 $\frac{1}{2}$ " (H) \times 13 $\frac{1}{2}$ " (D)

Weight: 4.6 pounds

Power consumption: 10.5 Watts

Optional accessories: VCA45 camera adaptor

Suggested retail price: \$995

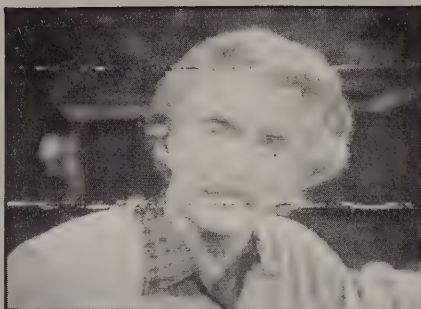
moderate separate VHF and UHF antennas. Sanyo supplies a VHF/UHF antenna splitter for the output. The VCR-to-tuner connection employs two cables, one considerably longer than the other, which makes for an unnecessary tangle of wiring behind the side-by-side units.

Like a couple of other decks, the **VPR4800** comes with a carrying handle which can be detached (albeit with difficulty) or folded down when it's not needed. But this handle wobbles in its sockets, making for uncomfortable transporting. Obviously a shoulder strap that frees both hands is preferred, and a handle might be considered an attempt to get the buyer to spring for the optional \$65 carrying case.

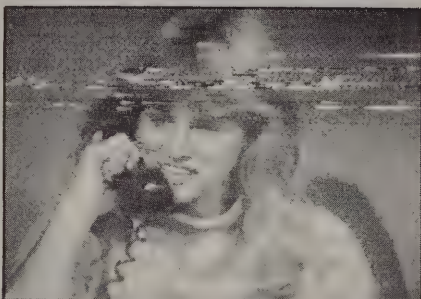
As for operating the units, our few complaints were essentially nitpicks. The VTR/TV switch is non-automatic, which means that it must be set to VTR even for the play mode. And the recorder takes its time reverting from forward search to play—we kept missing opening dialogue after speeding through commercials. An editing switch, when set to ON, activates the "time phased editing" mechanism which rewinds the tape with each record-pause. This is supposed to make for clean breaks between segments, but frankly we got glitch-free edits *whether the edit switch was on or off!* The feature is intended for use during camera recording; if you leave the switch on during television recording, you'll have to press the pause button (as you would the camera trigger) to start recording. If you attempt to press a function key during the brief rewind, you can damage the tape.

Audio/Video Quality. The Sanyo system has above-average performance going for it; we felt our Beta II and Beta III recordings rivaled those made on a top-notch home deck. There was less-than-usual picture degradation switching from faster to slower speed, though Beta III pictures were softer, with less texture, detail and color saturation—and the voices changed pitch. Still, it was usually hard to tell the difference. As for special effects, the search and still-frame pictures were noticeably noisier on Beta II tapes.

The Camera. We wouldn't quite agree with product literature that touts the Sanyo **VSC450** as "today's most versatile color video camera," but we found it to be a basic, easy-to-use camera with average performance and a couple of interesting conveniences. Above all, it's the only camera we've



The VPR4800's Beta II search picture (top) is recognizable, but noisier than the Beta III picture (bottom).



Freeze frames normally have some noise bars, and become progressively shaky as time passes. This shows a Beta III freeze.

seen with built-in tape transport controls. Thus, once the deck's power is on, you can record, play, cue/review and stop, simply by fingering the appropriate button on the camera head; and in the playback and search modes, you can freeze by pressing the record-pause trigger. Just how useful is this remote controllability? We suspect that few users play back their tapes in the field—they can't check the color, hate to waste the power, and are too busy recording—but those who do should appreciate not having to bend down to the deck itself.

The camera employs a $\frac{2}{3}$ -inch vidicon pickup tube with differential separation. The fixed-mounted 12.5mm-75mm, f/1.4 zoom lens focuses from about three feet to infinity, with a macro setting that lets you get as close as 7.5mm. Normally, the aperture adjusts automatically in illumination from 10 to 20,000 foot-candles. However, two manual adjustments are possible.

The iris can be opened or closed one f-stop's worth to compensate for

subject-background contrasts, and the sensitivity switch can be set to "high" to allow taping in marginal light. The 6X zoom lens can be operated manually by turning the zoom lever, or automatically with the wide/telephoto switch on the left side of the head. Actually, there are two power zoom speeds, depending on how far you press the W/T switch one way or the other; but the faster one makes enough noise to be picked up by the **VSC450**'s telescoping mike.

The Sanyo's electronic viewfinder houses the usual $1\frac{1}{2}$ -inch black and white CRT and LED indicators which signal low battery, pause, record, and underexposure. During our tests, our sample's soft CRT picture made it difficult to adjust the focus. You'll refer to three EVF lamps during the auto white-balance adjustment procedure. With the color-temperature filter set for incandescent, fluorescent or outdoor light, you aim the lens at a white object, move the color-adjust switch to ON, and see which lamp glows. An orange or red lamp tells you to turn the hue knob toward "red" or "blue" respectively, while a green lamp indicates that the white balance is correct.

It works this way: The camera compares the color composition of the white target with its internal reference standard make-up of white (about 59% green, 30% red, 11% blue) and signals when the two are equal. We found the automatic adjustment method produced results equal to our manual efforts (while watching a color monitor)—which is not to say colors were *perfectly* accurate. Occasionally, even with a very careful adjustment, there was still a slight blue or bronze cast, particularly at the bottom of the TV screen. Meanwhile, the picture resolution was average for a consumer camera.

The **VSC450** is simpler also in construction than the RCA **CC010** and GE **ICVC2030** cameras we recently tested. It lacks a handy carrying handle, a side-mounted and adjustable EVF, a choice of record-pause or zoom switches, and a shoulder rest. It's a for-right-handers-only unit, since the zoom switch (and all other controls, for that matter) are on the left. Fortunately for the user bearing its full weight in one hand, it weighs 4.6 pounds, somewhat less than other cameras.

Conclusion. All in all, we'd say the Sanyo portable team features average-to-good performance at a reasonable price. ☆



RCA's VFT 650 and Quasar's VH5610TW Tabletop VCRs:

Ever since we started testing VCRs, we've been wondering if two units produced in the same factory, but sold with different brand names and cosmetics are really identical. And going by queries from VIDEOPLAY's readers, you, too, are wondering whether it matters which of two similar (identical?) machines you choose.

To answer the question, we had shipped to us two new offerings, the Quasar VH5610TW and RCA VFT650. Like the comparable Panasonic PV-1770 and Magnavox 8345, these are state-of-the-art VHS decks manufactured in Japan by Matsushita. With two samples in the same place at the same time, we were in an ideal position to compare their performance, simultaneously recording the same shows on each through a splitter and switching between them during playback. And of course, we checked out their

**They're
Identical,
But Are They?**

wireless remote controls and cable-ready tuning sections, two attractive features making their way into this year's product lines.

There were some differences between the RCA and Quasar units, in performance as well as styling. The RCA has the sleeker look, but sometimes its cosmetics affected the ease of operation. More on this later.

The Recorder. Besides the usual three recording and play speeds (SP, LP, SLP), these two four-headed VCRs offer a full range of special effects. The most useful of these is the nine-times-normal forward and reverse

PICTURE SEARCH which operates at all three speeds. It is controllable both at the deck and the remote control. Meanwhile, the STILL FRAME, FRAME ADVANCE, variable SLOW MOTION (1/30 to 1/4 normal speed), and DOUBLE-SPEED playback apply to SP- or SLP-mode tapes. SLOW MOTION and DOUBLE-SPEED are available only via remote control.

As you know, it's not a simple matter to get perfect noise-free pictures in the special-effects modes, and that's where a couple of extra knobs come in. With the Still Tracking Control, we managed to move noise bands up (and usually off) the screen in the still, frame advance and slow modes. The normal Tracking Control remedies the problem in the double-speed mode, and also performs the fine adjustment which may be needed to simply play tapes recorded on other VHS machines. (If you forget to return the

RCA VFT650 Quasar VH5610TW

Tape Format: VHS

Speeds: SP/LP/SLP

Record/playback time with VK125 (T-60) cassette: 1 hour (SP), 2 hours (LP), 3 hours (SLP)

Record playback time with VK250 (T-120) cassette: 2 hours (SP), 4 hours (LP), 6 hours (SLP)

Channel coverage: VHF 2-13; UHF 14-83; Midband cable A-I; Superband cable J-W

RF output: Channel 3 or 4, switchable

Timer: Eight-event/two-week

Tape counter: Four-digit mechanical with memory

Special effects: Forward/reverse search (SP/LP/SLP), still, frame advance, slow motion, double speed (SP/SLP)

Remote functions: Record, Play, Channel Up, Rewind, Fast Forward, Pause/Still, Search, Frame Advance, Double Speed, Slow

Other features: Infrared wireless remote control, auto rewind, clock/timer back-up

Fast forward rewind time: T-120 three-minutes

Video horizontal resolution: Color—230 lines

Video signal-to-noise ratio: B&W—40dB

Audio signal-to-noise ratio: 42dB

Audio frequency response: SP—100-8000Hz \pm 10dB; LP—100-6000 Hz \pm 10dB; SLP—100-5000 Hz \pm 10dB

Dimensions: 18 $\frac{1}{8}$ " (W) \times 6 $\frac{3}{8}$ " (H) \times 14 $\frac{3}{8}$ " (D)

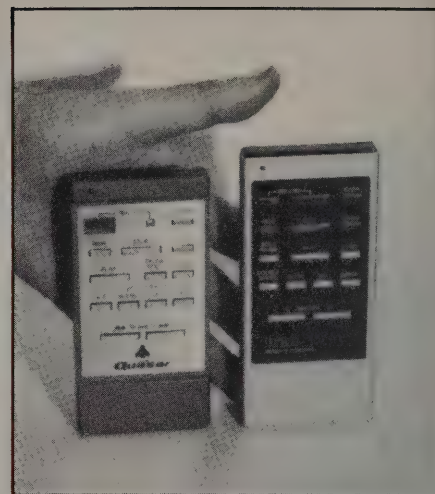
Weight: 33 pounds

Power consumption: 62 Watts

Accessories provided: Remote control with two AAA batteries; V-Lock adjustment tool; 75 to 300 ohm VHF matching transformer; 300 to 75 ohm antenna adaptor; 75 ohm coaxial cable; 300 ohm twin-lead cable; VK125 (T-60) cassette

Suggested retail price: RCA VFT650—\$1500

Quasar VH5610TW—\$1625



About the size of a pocket calculator, the wireless remote control operated all of the deck's functions, plus slow motion and double-speed play. The receiver for its infrared signal is built into the front panel, above the transport controls.

cable services charge a couple of dollars less to subscribers who can do without their convertor box.

However, several words to the wise are in order before you buy any deck for its cable-tuning feature. No VCR (including these two) can properly receive special channels which are scrambled, like HBO or Showtime. For those you'll still need the rented convertor/decoder in your hook-up.

Second, unless your TV set is also "cable-ready," you cannot record one CATV channel while watching another CATV channel without a set-up which allows switching between VCR and convertor box outputs. And finally, take the words "cable-ready" with a grain of salt. We tuned our samples to Manhattan Cable channels A-M with nary a problem, but you may not be so lucky. Most systems use the midband and superband frequencies, which are fixed and defined frequencies that so-called cable-ready VCRs (or TVs) can tune to. Others don't. Consult your cable service or a local retailer about your system.

The Timer. Like their Matsushita forebears, the VFT650 and VH5610TW feature a fluorescent 12-hour a.m./p.m. clock display and eight-event/14-day programmable timer. Events 1 through 7 can one-time or everyday programs, while the eighth event is reserved for weekly shows. For each recording, you'll enter the ON time and OFF time and press the appropriate channel selector. To help you out, the Day, Hour, and Minute buttons work in forward and reverse; and the present time, not 12:00 midnight, is displayed as a starting point for entering the ON

control to its center detented position, you may get streaks during subsequent playback.) If SP or SLP tapes manifest some vertical jitter, a Vertical-Lock recessed slotted-head screw can be adjusted. Fortunately our units didn't require this, since it was difficult to adjust it with the tool provided.

When PAUSE/STILL lasts about five minutes, the pause indicator light flashes and the machine automatically stops. Press the PAUSE/STILL button again, and the machine will return to playing or recording, whichever operation was taking place. The deck also stops after ten continuous minutes of slow motion, and except during timer recording, automatically rewinds when it reaches the end of the tape.

If you plan to do VCR-VCR dubbing or camera recording, you'll want to know that the Camera Remote Pause jack, Camera/Tuner Selector switch, and audio, video, and mike inputs are at the front, concealed by a sliding

panel. The VHF and UHF inputs and outputs and audio and video outputs are at the rear.

The Tuner. The big news here is the "cable-ready" tuning section. Any of the 14 channel selectors may be set to receive midband (A-I) or superband (J-W) channels—in addition, of course, to normal VHF and UHF frequencies. (That's a total of 105 possible channels, but fewer are actually available and only fourteen of those can be accommodated.) Thus, you can connect the incoming coaxial CATV cable directly to the VHF input terminal, bypassing the supplied cable convertor box, and adjust your channel selectors to receive cable channels just as you would broadcast frequencies. Because you're not locked into a channel selected at the cable company's little black box, you can take advantage of the VCR's eight-event programmable timer and remote channel-changing capability. Moreover, many

time. An internal battery back-up preserves the clock and timer settings during short power interruptions. If programs overlap, the program indicator corresponding to the overlapping program lashes.

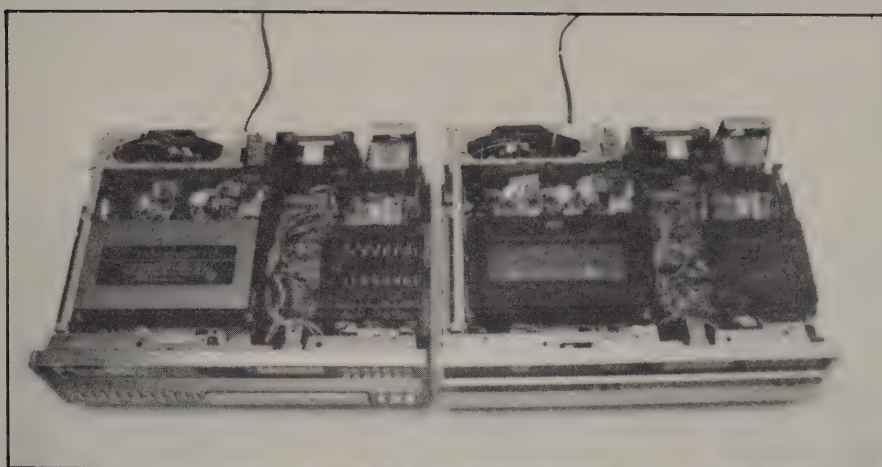
The Remote Control. A full-functioned wireless remote is standard equipment with the Selectavision and Quasar. (Incidentally, it's an option with the Panasonic PV-1770). From more than 30 feet away, the lightweight battery-powered module sends an infrared signal to a receiver built into the deck's front panel. Red LEDs indicate that the signal is being transmitted and received.

Besides those functions controllable at the deck itself, the remote module operates the variable slow motion and double-speed playback. Another button lets you cycle forward through the 14 pre-tuned channels. The only feature lacking is a Power ON/OFF button, a godsend for bedroom viewers who hate to make a last trip to the deck before calling it a night.

Operation. As we mentioned, some styling differences made for slightly more or less ease of operation. RCA's distinctive "streamlined" look may be pleasing, but we found the Quasar's well-spaced transport buttons with black-on-chrome labels significantly easier to locate and press. It was also easier to find the desired button quickly on the Quasar's black-on-chrome remote control keypad.

Both units had unusually quiet tape transport systems; we needed to refer to the lit LEDs to be sure the tape really was winding. Note that separate buttons activate CUE and FAST FORWARD, REVIEW and REWIND. That's a convenience, since you won't need to press STOP to switch from PLAY to FAST FORWARD or REWIND. When using the picture search, you needn't anticipate the end of a commercial or other unwanted material. Tape movement stops the moment you release the search button; and though it still takes a couple seconds for the picture to stabilize, you're not well into the scene when it does. Our Quasar recorder took somewhat longer to stabilize and exhibited noise bars well into the play mode—this suggests a slight tracking problem with our sample.

Performance. We recorded at all three speeds onto the two cassettes packaged with the equipment, and we evaluated the results on our color TV set. For a more efficient A-B comparison, we used a splitter to feed the



Although the cosmetics differed, the insides of these Matsushita-made recorders were identical—down to the last part number and unused cable hook.

same cable input to both sets, and an antenna selector to switch between VCR outputs.

We found the Selectavision's performance slightly better, especially at the slower speeds. At SP the two were close, both delivering above-average recordings hard to differentiate from the original broadcast except for slight "bloom" in the reds. With the LP and SLP speeds there was increasing graininess and jitter in the picture, and a loss of the higher frequencies in the sound.

Degradation was slightly more noticeable on the Quasar; for example, at LP and SLP, it showed progressively more flutter, noise, graininess and (at SLP) dropouts. Too, its search picture was usually noisier, and it took longer to stabilize when we switched from SEARCH to PLAY. While the RCA's performance was consistently very good, the Quasar's performance varied from very good to so-so. (Yes, we interchanged the tapes and double-checked the settings of the tracking controls!)



Star View

Systems

SATELLITE

A DIVISION OF H&R COMMUNICATIONS

501-647-2291 **Pocahontas, AR 72455**



Introduces the

MODEL 12K SYSTEM . . .

A complete home satellite receiving system that you can assemble yourself as a week-end project.

Why spend \$7,000 to \$10,000. Why pay someone else to install it. Do it yourself in a weekend and save.

ONLY \$2,400.00

Dealer Inquiries Invited

KIT CONTAINS

- 12' Antenna
- AZ/EL Mount
- 24 Channel Receiver
- 120° LNA
- Feed Horn
- All Miscellaneous Cable and Connectors Needed
- Everything You Need
- No Special Tools Needed



We also manufacture 4 other systems for the home and commercial market (10 ft., 13 ft., 16 ft., 20 ft.). Manufacturer Direct Pricing —\$2,400. 501-647-2291.



Noise bars were eliminated from Still (top) and Double-Speed (bottom) pictures by adjusting a Slow Tracking Control.

The nine-times-normal Search provided a relatively noise-free picture at all three speeds.

Based on the two test samples, we had to give higher marks to the RCA Selectavision. Do our findings mean that you should choose the RCA over the Quasar? Not necessarily. Since the internals were identical down to the last part number, a comparison of two other samples of the same deck might just as likely lead to the opposite conclusion. In fact, we suspect we'd find similar differences between two RCAs or two Quasars. And although both units are manufactured by Matsushita, each company is responsible for its own quality control in the U.S.—and we have no way of knowing which has the tougher QC guidelines and enforcement.

The bottom line. VCRs, particularly at their slowest speeds, are really pushing the state of the art. This makes it likely that even a minor factory misadjustment or mistreatment in shipping will produce a significant deterioration in performance—particularly when compared to an identical machine that is optimally adjusted.

How does this information help the VCR shopper? It serves at least as a caveat to check the operation of all the functions and special effects, particularly the slow-speed ones, against a floor sample of the machine. Also, check with the importer/manufacturer (not the retailer) during the warranty period if everything doesn't seem to work exactly as it should. ☆





Let us show you how to shoot video like a pro

In my videotape production company, our crews turn out award-winning commercials, sales films, and features for some of the largest companies and television networks in the country. Now we would like to share our vast experience and award-winning capabilities to help you shoot your video with a professional-quality look—through an exciting new concept called VC 2000, a club for video camera owners.

Now, for a limited time, only when you join VC 2000, I'll send you FREE our one-hour instructional tape "Shooting Home Video: The Basics."

There's nothing like it on the market. In an entertaining, step-by-step format, our directors, cameramen, engineers and editors share their trade secrets. This could be the most valuable videotape a video enthusiast could ever own . . . and open up possibilities you never thought possible.

In one hour, I can demonstrate more techniques than you'd get from reading a dozen books.

You'll learn:

THE VIDEO CAMERA: How to use its full potential to make your tapes really come alive.

VIDEO SOUND: Get clean, true sound under every shooting situation.

VIDEO LIGHTING: Achieve that distinctive professional look, inside and outside.

VIDEO COMPOSITION: Apply the five artistic guidelines for winning composition.

VIDEO DIRECTING: Think like a director, utilizing the principles of continuity, to make the simplest situation a story.

Plus...look at all the other great member benefits you'll get with this introductory offer to join VC 2000:

- A five year membership card.
 - A \$20 discount on our instructional videotape "How to Set Up Your Own Video Business."
- Learn about possible tax advantages of working for yourself in the exciting videotape production business...the services you can offer and how to sell them.

- A library of other professionally-produced instructional videotapes at special member prices, like:
 - HOW TO SHOOT A WEDDING
 - HOW TO SHOOT A SPORTS EVENT
 - HOW TO SHOOT FAMILY VIDEO "ALBUMS"
 - PLUS MANY MORE
- FREE quarterly newsletter with state-of-the-art developments in the world of video.
- Discount prices on blank cassettes and equipment.

Don't miss out on this exciting introductory offering. Send in this coupon and your check today. Or use our toll-free number for further information, or to charge your membership to your VISA or MasterCard account. Offer ends March 31, 1982.

All this for only \$90.00

Jim Kartes
Jim Kartes
Kartes Video Communications, Inc.

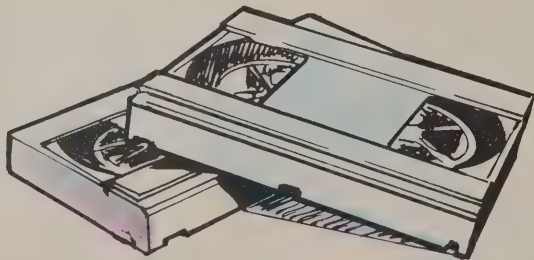
Please send me my VC 2000 membership card and	
<input type="checkbox"/> FREE "Shooting Home Video: The Basics"	L
60-minute instructional tape.	
I will need: <input type="checkbox"/> VHS Cassette <input type="checkbox"/> BETA II Cassette	
NAME _____	
ADDRESS _____	
CITY _____	STATE _____ ZIP _____
<input type="checkbox"/> Also send me the program: "HOW TO SET UP YOUR OWN VIDEOTAPE BUSINESS" at the discount price of \$45.*	
Enclosed is my check for <input type="checkbox"/> \$90.00 <input type="checkbox"/> \$135.00 (*IN residents add \$1.80 sales tax)	
Bill my <input type="checkbox"/> VISA or <input type="checkbox"/> MasterCard account. My account number is _____ Expires _____	
Signature _____	
<input type="checkbox"/> I do not presently own a videotape camera but am interested in more information on VC 2000. For further information in a hurry, call toll-free: 1-800-428-6163 (except in Alaska or Hawaii), 1-800-692-6048 (in Indiana).	
VC2000 TM	VC 2000 10 E. 106th St. Indianapolis, Indiana 46280

WAYS TO \$AVE ON VIDEO

Help Your Cassettes Live Longer

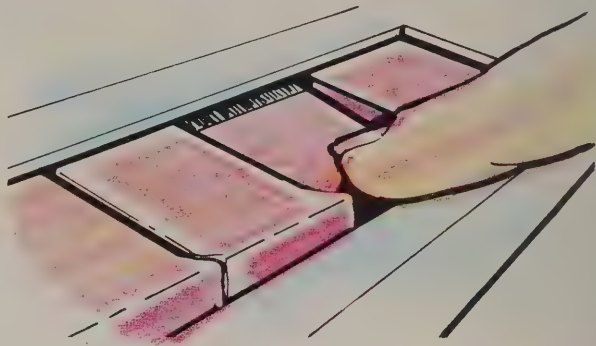
You can use blank videocassettes many times over, and watch your favorite movies hundreds of times, if you treat your videocassettes humanely. Taking care of your cassettes starts with taking care of your recorder; here are some tips on how to keep your collection in tip-top shape . . .

1 Keep the recorder free from dirt, food particles, dust and other contaminants which can be deposited on the tape and become permanently imbedded in the video heads. This will cause scratches on your cassettes, dropouts in your recorded pictures, and other assorted problems.



2 Even though cassettes have their own protective housing, always keep them in the case when they are not in use. And remember to store them vertically on a shelf—never store a cassette flat. If you pile several cassettes on top of one another, even though they may be in cases, you can warp the housings and the reel flanges—causing edge damage, tape stretch and other nasties.

3 Never touch the tape with your bare hands. Even though your hands are “perfectly clean,” you have oil on your fingertips. If that oil is deposited on the surface of the tape, it acts like a magnet for all the dust particles in the air, and you end up with a cassette that has scratches, dropouts and the like.



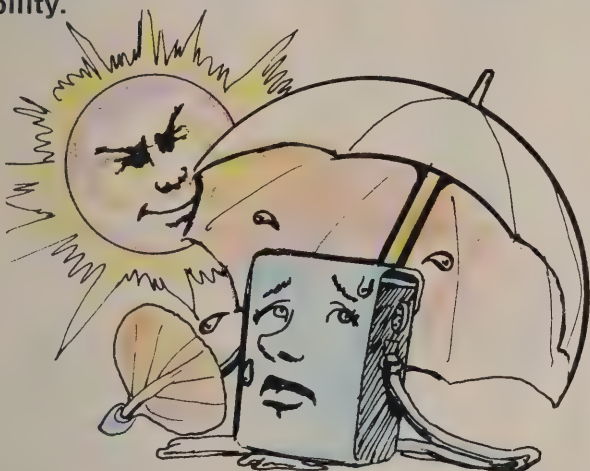
4 If you have a VCR with piano-key controls, always let it come to a complete stop when changing tape direction. In other words, don’t go directly from forward to reverse, or vice versa. Not only is this hard on the machine, it will put a strain on the tape and cause it to stretch or, in extreme cases, even break. Newer recorders, those with electronic pushbuttons, have a built-in compensation for this that allows you to go from one motion to the other without stopping in between.

5 Watch the temperature; cassettes are best kept between 50° and 90° Fahrenheit. If the thermometer climbs to 110° or more, the tape will soften and the oxide surface on one loop will begin to stick to the plastic backing of the loop that lies on top of it. In other words, your cassette will become stuck on itself.

Getting A Charge Out Of Batteries

6 If you don’t keep an eye on your portable’s battery pack, you’ll end up having to replace it in no time. Store the battery in as cool a place as possible, and remember to charge it every three or four months—even if it hasn’t been used. Batteries lose about ten percent of their power each month when stored, and if you let yours run down too fast, you may not be able to recharge it.

7 Also, be careful not to charge the battery from the same discharge level too often. You run the risk of having the battery develop a memory, which will prevent it from working beyond that point. For example, if you constantly recharge the battery at the charge level mid-point, the time will come when the memory will not permit operation time of more than half the unit's actual capability. The best way to rectify this, if it has already happened, is to run the battery completely down, and then recharge it for 48 hours. You'll probably have to do this twice to erase the memory, and restore the battery's full power capability.



8 Remember, too, that the battery's operation time decreases as the ambient temperature decreases. In other words, when you're shooting in the field, expect longer battery life at higher temperatures. Incidentally, don't leave the battery pack in the sun; it can't take temperatures of over 90° or so—check your manual.

Don't Waste Tape

9 When recording off-air, keep track of how much tape is left so you can add material at a later date. An easy way of doing this is to set your VCR's counter at 0000, run to the end of the program, and jot the new number down on a piece of masking tape or an adhesive label. Stick this on the cassette's plastic jacket, so you'll know at a glance where to start the new program. An added plus is that the masking tape will pull off easily when you use up the tape.

Getting Programs At The Least Cost

10 Look into joining a video retailer's tape rental club, if the store where you purchased your equipment didn't throw in such a membership as an added bonus. The plans vary from store to store, but you're likely to find those that charge a flat fee, which entitles you to borrow a certain number of tapes; plans which carry enrollment fees entitling you to rent programs at a minimal cost; and those which give you a few free rentals after you've paid to borrow a number of titles.

11 Also look for specials. One retailer we know found that business was always slow on Tuesdays. No more! He's offering Tuesday-only specials on movie rentals, with prices up to \$4 below his rest-of-the-week prices. You might suggest something like this to your local video store; remember that titles sitting on the shelves are not making money for the dealer.



Easy, Inexpensive Titles

12 An especially easy way to prepare titles and other graphics that will give your videotape a polished look is to use transfer lettering. Transfer or rub-off letters can be purchased at most art or business supply stores at prices ranging from \$1 to \$3 per sheet (one sheet contains enough letters and characters to create several titles.) Many type styles, sizes and colors are available; choose the one that best suits the occasion.

13

Transfer letters adhere to most surfaces, but putting them on glass yields some unique effects. For starters, place the phrase ("Our Trip To Florida," for example) on the passenger window of the car and tape it from the driver's side. Focus on the lettered title so the background is blurred. Then gradually blur the title and bring the background into focus—the letters will seem to disappear!

Outdoor Lighting

14

When shooting outdoors, commercial film crews use as many as six reflectors to provide fill light—a costly technique because they go for about \$600 each. You can get similar effects by using sheets of poster board or white cardboard, leaving one side white and covering the other with aluminum foil to provide two choices for the amount of reflectivity. While you are videotaping, just have someone aim the reflector at the subject. The extra fill light can make a dramatic difference in the quality of the image.



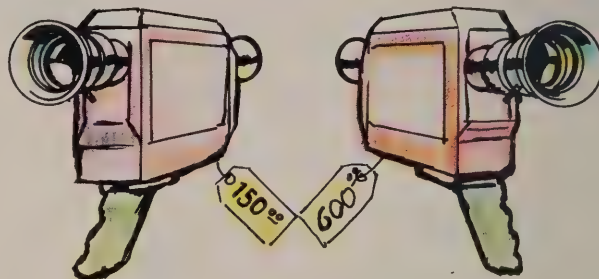
15

If you need a lot of light, you can buy a product called Foamcore at office supply or art stores. It comes in 4' x 8' sheets, costs about \$10, and is very light yet rigid so one person can handle it (or you can cut it in half to make two reflectors). This, too, can be covered with foil to reflect a lot of light. And, despite being rigid, Foamcore is bendable, so you can actually shape it and direct your reflected light quite accurately.

Indoor Light The Easy Way

16

If you're shooting indoors and need more light, try using 500W photo-flood bulbs in your existing lamps. They're small flood-lights with regular screw-type bases that fit into most sockets. But before you try this, make sure your wiring can handle it.



Coloring Your World Is Expensive

17

Once you're equipped with a portable VCR and color television set, it's tempting to "go for broke" and buy a color video camera. But if dollars are in short supply, consider buying a black-and-white model—it will serve you just as well as a color one would when recording your baby's first steps, etc. Yes, a number of black-and-white cameras are sold, they're just not played up by dealers too often. The reason for this is that a color camera will cost you at least \$600, while a black-and-white model can carry an under-\$150 price tag. The bottom line is, it's better to have a black-and-white video camera than none at all; you can always step up to a color model.

Used Isn't Always Bad

18

Think of video equipment like hi-fi gear; people sell what they have because they're stepping up to newer, more sophisticated models. You can pick up some good buys by shopping for second-hand items; you can often find them in VIDEOPLAY's classifieds, or by contacting a video store that takes trade-ins or rents equipment.



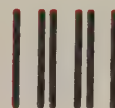
Keepon top of video equipment and new programming by reading VIDEOPLAY throughout the year.

Along with buyer's guides, you'll find each issue packed with VIDEOPLAY's unique how-to hints on improving your video shoots; news on the latest in low-cost gadgets; camera and portable video tips; and advanced looks at what's coming in video games and computer video; and more.

In every issue you'll also find our . . .

- no-nonsense product test reports
- playlists of movies available on videocassette
- reviews of unusual, little known programming
- Bob Cooper on home satellite earth stations
- and do-it-yourself projects guaranteed to save you money and boost your video enjoyment.

To make sure you'll get each and every issue of VIDEOPLAY, and save money besides, send in the attached, postage-paid subscription card. You'll save \$3 over newsstand price with a 6-issue subscription, \$9 if you sign up for 18 issues!



**NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES**

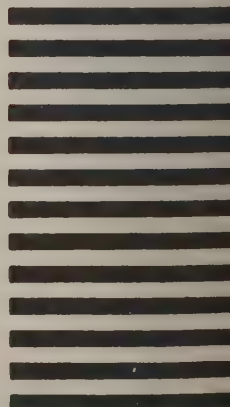
BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 587 DANBURY, CT

POSTAGE WILL BE PAID BY ADDRESSEE

VIDEOPLAY MAGAZINE

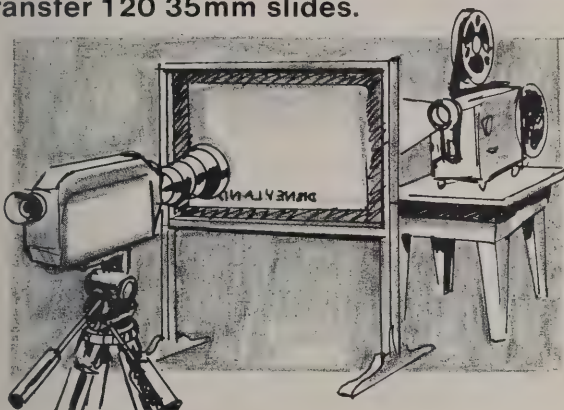
Attn. Subscription Dept.
C. S. Tepfer Publishing Co., Inc.
51 Sugar Hollow Road
Danbury, CT 06810



Film-To-Tape Transfer



If you're tired of lugging out the old projector and screen every time you show home movies or slides of your vacation, you can transfer your super 8mm movies and slides to videocassette. For a hassle-free approach, try one of the commercial services, such as Fotomat or Burbank's Concept Video Productions. Their results are far better than those you'll achieve at home, and the prices are surprisingly reasonable. You can expect to pay under \$20 to transfer 400 feet (about 27 minutes) of super 8 to Beta or VHS, and under \$12 to transfer 120 35mm slides.



If you plan on transferring a lot of material to videocassette, you might want to purchase a telecine adaptor to tackle the project at home. Magnavox, Quasar, Sony and Akai sell these units with price tags ranging from \$100 to \$250. But we've found the results to be less than perfect—especially since you can rig up your own film-to-tape transfer system for under \$15. Just buy a sheet of Polacoat lenscreen (about \$5 per foot) and staple it around the edges of a wooden frame not larger than one foot square. Then, setting up your projector behind, and as close to the screen as possible, focus—going by the image on the front of the screen. Put your VCR on RECORD, and keeping your video camera close to the screen, focus by checking the picture on your TV set. Once you've aligned and focused, frame the projected picture, turn off the lights, and roll 'em! (Remember, titles, etc. will come out reversed.)

For more on film-to-tape transfer, check the May 1981 issue of VIDEOPLAY. (For a copy, send \$2.50 to VIDEOPLAY, Past Issues, 51 Sugar Hollow Rd., Danbury, CT 06810.)

Shopping

If you buy video equipment on a whim, you're likely to pay at least 30 percent more than you should. But if you're patient, you're apt to get the units you really want, at the lowest price available.



Before plunking down your hard-earned cash, visit six or more local stores; if you're close to a state border, visit out-of-state retailers as well. Let the salespeople tell you all about the equipment, and read test reports and other product information contained in VIDEOPLAY. When adequately informed, you'll be less intimidated by salespeople, and will reduce the risk of being talked into something you don't really want.

22 23 24 25 (continued next page)

EARTH STATION SPECIALS

12' Spherical dish with extra heavy screen Feed Horn and motorized LNA mount

120° LNA

SAT TEC R2BR

Receiver \$2250
choice

AUTO TECH GLR500 .. 2650

10' Fiberglass dish Antenna on Tackable mount Circular Feed Horn and motorized LNA mount

120° LNA

SAT TEC R2BR

Receiver \$2800
choice

AUTO TECH GLR 500 .. 3100

11' Aluminum ADM Antenna Circular Feed Horn and motorized LNA mount

120° LNA/Auto Tech GLR500

Receiver \$3200
choice

120° LNA/Dexcel DXP1000-01 with built in Down Converter and receiver 3500

Remote Satellite Tracking system for ADM 800

12' Mac Line Antenna with Stainless Steel Mount. Circular Feed Horn and motorized LNA mount

Dexcel 1000-01 120° LNA with built in Down Converter and Receiver 3600
choice

120° LNA/Washburn or Comtech 550 Receiver 4300
Remote Satellite tracking system 800

13', 15', 16' & 20' System available

FREE on-site check of your installation within 100 miles
SIGNAL SYSTEMS specializes in large condo, apartment, and marina installations. However, no installation is too small.

SIGNAL SYSTEMS, 397 CLOVE ROAD, STATEN ISLAND, N. Y. 10310
(212) 981-7230

ARE YOU A VIDEO DEALER?

Build a Video Center For Under \$100
Special Rate

SATELLITE EARTH STATIONS - A LOOK AHEAD

VIDEOPLAY MAGAZINE

FEBRUARY 1992
\$1.75 The How-To Magazine For Home Video

Do-It-Yourself VCR Repair ■ Choosing A Camera Tube
Test Reports On RCA's VFT650, Quasar's VH5610 & Sanyo's Portable System ■ Lighting Gear ■ Westerns On Cassette

25

25 WAYS TO SAVE \$ ON VIDEO

Quasar vs. RCA - they're both made by Matsushita, but are they both the same?

... If you are, we have a product for you that is fast moving, will bring people back into your store, and is profitable to carry. The product is VIDEOPLAY magazine.

- VIDEOPLAY magazine shows the whole picture of the exciting world of video—and gives your customer ideas on videotape and all the accessories you carry.
- VIDEOPLAY magazine will bring them back to your store for every issue.
- We furnish an attractive point of purchase box to display your copies of VIDEOPLAY magazine.
- Use this coupon (or call 203/743-2120) to order the quantity you desire for sale in your store—it's a low-overhead way to add to your bottom line.

Mail coupon to:

VIDEOPLAY magazine
51 Sugar Hollow Rd., Danbury,
CT 06810

Yes, I want to sell **VIDEOPLAY** magazine in my store. Send me the following quantity:
25 () 50 () 100 () copies of each issue at the VIDEOPLAY dealer discount.

Name of store _____

Address of store _____

City _____ Tel. _____

State _____ Zip _____

Authorized by _____

Signature _____

PRICE COMPARISON CHART

ITEM	J&J	Chen's	KYZ Co.	Penn.	Cohr M	Seale's	Unkeld	O'Hara's	PB's	Jodi's	Haw
JVC VCR Portals	1100	1100	1075	X	1108	X	1110	1095	X	1100	X
Sony Portals	1350	1300	1300	1305	1360	1375	1378	1295	X	1360	1325
RCA Portals	1400	1400	X	1408	1409	1450	X	1375	X	1405	X
Quasar VCR Portals	1450	1400	X	1470	1460	1475	1480	1420	X	1457	X
RCA Camera	1125	1100	1115	X	X	1136	X	1128	1130	1130	1100
Quasar Camera	1075	950	1005	X	X	X	1075	1085	1085	1080	980
JVC Camera	975	850	X	X	X	X	980	825	860	980	X
Quasar Camera	1150	1125	X	X	X	X	X	X	X	X	X



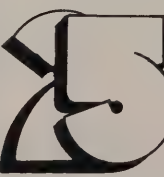
While shopping, be sure to note the prices of each piece of equipment. A chart is helpful for this purpose—list the items vertically along the left margin and the ten or so retailers across the top. At a glance, you'll be able to tell who has what.



A small percentage of the retailers on your list will be willing to sell the equipment for only 5 to 10 percent above cost. Armed with this information, pick a price which you feel is reasonable, and start calling to see if anyone will be willing to sell in that range. Be sure to talk to the store owner or manager, and try to stick with the smaller stores. It helps to suggest that so-and-so is willing to sell for that price, but you would rather purchase the equipment from them. But be careful, for they will often call "so-and-so" to verify your claim.



Discount houses are more interested in turning over their stock than in maintaining their price margins. To do this, they often sacrifice service. But, if you already know what equipment you want, and the store promises to send the items back to the manufacturer's service center should the need for repairs arise, you might not need the 10 salesmen, plush carpets, track lighting and other frills that many more expensive stores offer.



Remember, too, that retailers do not charge sales tax when shipping out-of-state if they don't have a branch in the state you're ordering from. So, if you live in New York City, for example, and order video equipment from Connecticut, you'll save a hefty 8 percent. That can add up to savings of about \$200 if you're buying a portable VCR and camera, and your only sacrifice is that you'll have to order the equipment, rather than carry it home with you. ★

WHY THE BIGGEST FEATURE IN OUR NEWEST COLOR VIDEO CAMERAS IS A LITTLE BLACK AND WHITE TV SCREEN.

Take hold of JVC's newest brainchild. The Vidstar GX-44 color home video camera. It feels suprisingly light. It should—it only weighs about 2½ pounds. Now peek at the advanced electronic viewfinder. It's a little black and white TV screen, the single most important feature your color video camera can have. A feature you'll also find on our top-of-the-line portable camera, the Vidstar GX-88.

Your window to the world of live video recording.

Everything you need to shoot exciting, live video is right on the video screen. It lets you see exactly what you're shooting.

While you're shooting it. And you can play it back anytime you want. What's more, the electronic viewfinder has built-in visual indicators for VCR start and stop, battery power, and under-exposure/white balance.

Two ingenious cameras with today's most advanced features.

First, examine the new Vidstar GX-44. It offers smooth, sure shooting thanks to features like automatic iris with back-lighting compensation, a powerful 4X zoom lens, a sensitive condenser microphone to provide crisp, clean sound. And, all in a compact sized camera with a total power consumption of only 6 watts!

Next is the impressive Vidstar GX-88. It's simply loaded with today's most exciting features. Like a 6X power zoom lens with macro-shooting capability as close as 1½ inches! You can use the standard microphone, or add the optional zoom microphone that moves in on the sound as you move in on the picture. And a host of other exciting features.

If you're ready to shoot live video, JVC is ready for you...with Vidstar Color Video Cameras. See them at your JVC dealer today.



**JVC Vidstar
GX-44**



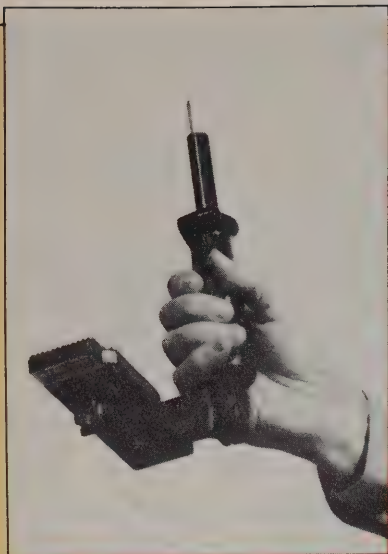
Magnifying viewfinder lens removed. Actual viewfinder image.



JVC Vidstar GX-88

VIDSTARTM
JVC

US JVC CORP.
41 Slater Drive, Elmwood Park, N.J. 07407
JVC CANADA INC., Scarborough, ONT.



The Acme-Lite model 708G, a quartz-halogen lamp, offers a convenient handle which can be quickly screwed into place. The light can also be mounted atop a video camera.

by Robert J. Kerr

If your indoor video shoots aren't complemented by adequate lighting, you'll end up with dark, shadowy images that your audience will barely be able to distinguish. Though many of today's video cameras are capable of performing in low light situations, good lighting provides your tapes with the extra polish of proper contrast and color, and guarantees that you'll get a picture every time.

There are several lights on the market that you can use to brighten up and improve your tapes; we tested those offered by Cool-Lux, Acme-Lite and Smith-Victor, and suggest some hardware store alternatives you can put together yourself.



120 Volt

Line-Operated Lights

The compact quartz-halogen lamp makes high light output, but miniaturized fixture design possible. Units offered by Cool-Lux, Acme-Lite and Smith-Victor are small and light enough to be mounted on top of the camera or readily carried in the kit bag.

All of these provide for three basic mounting possibilities—camera, light stand or hand-held. When used while mounted on the camera, care should be taken to prevent the light from heating the camera. Such high temperatures can cause changes in the color performance or even damage to the camera's sensitive components.

Acme-Lite has three types of lights available in one basic frame—Model 708G, 115 volt DYH quartz-halogen; Model 800, BHH conventional design lamp; and a Model PML kit with a 12-volt DZB quartz-halogen lamp. Compactness is due to a combination of

high temperature phenolic plastic and stamped aluminum reflector.

Cool-Lux takes a different approach. Any high intensity incandescent light radiates considerable heat which can be uncomfortable for the subject in the light. The Cool-Lux Mini-Cool fixture has an infrared absorbing filter glass, combined with the IR-UV transparent reflector integral with the lamp. This reduces the ultra-violet and infrared heat impact on the subject, which could be a great help when video taping infants, who might cry under

normal lights. A slide/film projector-type quartz halogen lamp with integral reflector is used and mounted in a compact, all metal, louvered housing.

A disadvantage of this light is that the housing gets very hot after a few minutes of use, and can give the user a painful burn if it is touched. (This is characteristic of all compact incandescent lamps.)

Another feature of the Mini-Cool is the variety of lamps available for use in the same fixture, allowing use with 120, 30, and 12-volt sources.

LIGHT

Battery-Operated Portable Lighting

Portable, battery-powered videotaping is growing in popularity. And with this comes the need for battery-operated light systems to improve the quality of videotapes made indoors or in heavily shaded outdoor locations. We found that Acme-Lite and Smith-Victor offer well-designed systems to meet this need.

Battery power for high intensity incandescent lights is more of a problem than one might realize. Incandes-

cent lamps are inefficient, since most of the electrical energy goes into heat. The designer is faced with a trade-off of battery cost and weight versus operating time. Both Smith-Victor and Acme-Lite have opted for 5-lb. batteries that offer about 20 minutes of operation. Both use a gel electrolyte, lead acid type battery. To conserve battery power, it's important to turn off the light when it's not in use.

Acme-Lite PML System

The model PML consists of a lamp, a battery/case with shoulder strap, and a charger unit. The lamp can be mounted in a variety of ways with appropriate accessories from Acme-Lite, or a photographic or video store. You can expect 17 to 20 minutes of operation from a fully charged battery; recommended recharge time is 15 hours. Unlike sealed nickel-cadmium cells, overcharging lead-acid batteries at the 16 hour recharge current rate can damage the battery if left on continuously, so be careful.

Both Acme-Lite and Smith-Victor use an auto cigarette lighter type connector system. The Acme PML uses the female connector on the lamp which precludes using the lamp from an automobile cigarette lighter socket without an adaptor. The company also has an interesting accessory battery available to parallel two batteries and thus extend the operating time up to 40 minutes. The model PBL accessory has a battery identical to the PML system, a charger unit, and an adaptor socket set to parallel the batteries.

Smith-Victor Battery Light Kit

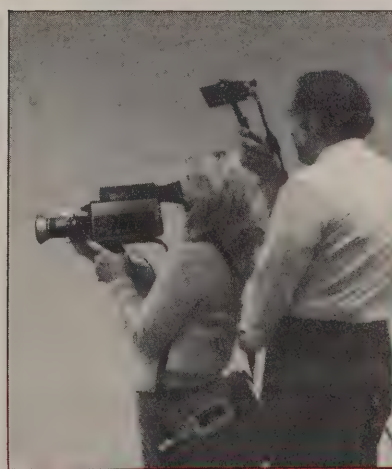
The BL2D kit we examined is somewhat different than the Acme-Lite product. Packed in a large attache case style carrier, the model BL2D has provision for coupling two 100 watt light heads (provided in the kit) for more light. This is useful when shooting outdoors at night, especially when trying to cover large areas. But you pay for the increased light with reduced operating time; you can expect 10 to 12 minutes of power from a fully charged battery.

Because the light head uses a male connector, the BL2D can be operated directly from an auto cigarette lighter socket.

The BL2D kit consists of the primary 100 watt light head, the satellite head, a battery/case with shoulder strap, the charger, and a removable handle for the light. Available accessory fixtures allow a variety of mountings for the light head.

Smith-Victor claims up to 25 minutes operating time (single light head) and a seven hour battery recharge time. The instructions caution against leaving the standard charger on for more than 18 hours; to guard against this, a special charger which provides a more controlled charge and can "float" the battery indefinitely is available. Such chargers are valuable because they maintain the battery at full charge, ready for instant use, and in some cases can restore lost capacity to abused batteries. →

The Cool-Lux Mini-Cool, which uses a quartz halogen lamp mounted in a compact, all-metal louvered housing, reduces the ultra-violet and infrared heat impact on the subject.



You can improve your video shoots with one of the store-bought lights, or you can rig up your own by using readily available sockets and a little ingenuity.

ING GEAR

Have Spares—Will Travel

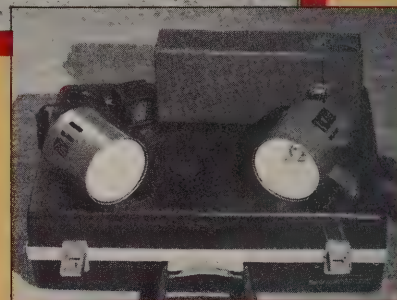
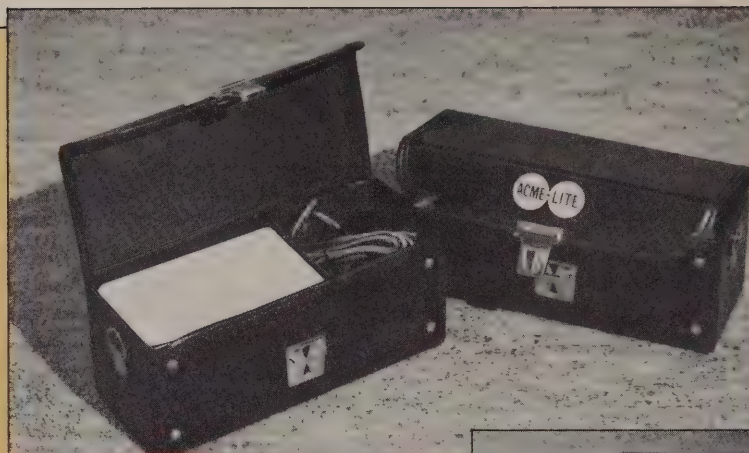
Having spare lamps in the field kit is an absolute necessity when videotaping away from home. High temperature (for more light efficiency) lamps have a shorter life than common household lamps, and fail at the most inopportune times—a fact to which many video hobbyists can attest. Sometimes the user is responsible for a lamp's premature death. Portable lighting is frequently dropped, and this will often kill a lamp, especially if it is turned on. The more times you turn a lamp on and off, the greater the chance of failure. On the other hand, to save battery life one usually turns off the lights when they're not needed, and this increases the chances of lamp failure. Compromising battery operating time versus lamp life is a judgment call which requires some advanced planning.

Fortunately for the videophile who requires lighting infrequently, a very acceptable lighting job can be accomplished with inexpensive fixtures found in hardware and photo stores.

Using simple lighting devices for home video recordings is now more possible than ever because of improvements in light sensitivity and color

temperature adjustments in today's consumer video cameras. This means good pictures can be obtained with modest light levels from common household-type lamps.

Perhaps the simplest lighting accessory is the standard 120-volt lamp socket with a swivel spring clamp attached, available at many stores that sell electric fixtures. At the mouth of the socket is a threaded portion that will accept a wide variety of reflectors. The spring clamp allows chairs, tables, coat racks, shelves and the like to become instant light stands. A wide variety of lamps is readily available to achieve different effects.



At top is Acme-Lite's PML battery, with case, shoulder strap and charger unit. Beside it is the model PBL, which can be used to extend operating time up to 40 minutes. Beneath this is Smith-Victor's BL2D kit, which packs two 100 watt lights, a battery with case, shoulder strap, charger and removable handle into an easy-to-carry attache case.

Red Fox

Presents . . .



The newest concept in video storage cabinetry. Hand crafted wood cabinetry featuring a unique revolving shelf unit that holds up to 100 video tapes.



- Premium raised panel door styling blends with any decor.
- Hand wiped Maple or Danish Walnut stains.

RED FOX ENTERPRISES INC.
ROUTE 209 EAST
ELIZABETHVILLE, PA. 17023
717/362-3391
DEALER INQUIRIES INVITED

Tape City

The Video Only Specialists

The oldest and one of the largest Distributors/Dealers of consumer and professional video equipment in the U.S.A. featuring all famous brands at low discount prices. Orders shipped promptly.

SEND FOR OUR
FREE NEWSLETTER

For Immediate Price Quote
CALL TOLL FREE
800-223-1586 • 223-1990

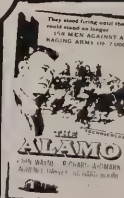
Tape City

404 Park Ave. South
New York, N.Y. 10016
(212) 679-1606



Put the Red Fox in
your Video Collection

Send for
catalog
\$1.00
refundable
with
1st
order
1,000
Titles to
select
from at
savings
\$\$\$ you
cannot
pass by
also
super
prices on
equipment



"The Alamo"
"The Maltese Falcon"
"Legend of the Lone Ranger"
"Friday 13th, Part II"
"Darby O'Gill and The Little People"
"Blue Lagoon"
"Scars of Dracula"
"Endless Love" with Brooke Shields
"The Tool Box Murders"
"The Pit and The Pendulum"
"Jazz Singer"
"One Eyed Jacks"
"Stir Crazy"
"Goodbye Girl"
"Alien"
"Charade"

USA
order by
phone

1-(717) 362-3391



RED FOX ENTERPRISES, INC.
ROUTE 209, EAST
ELIZABETHVILLE, PA 17023

More About Lighting . . .

There are many things about light that go unnoticed in daily life yet profoundly affect color photography video and results. So it's best to understand the principles for getting balanced color in video pictures with a variety of inexpensive light sources.

Both the sun and incandescent lamps produce light because they are hot; light quality is affected by "how hot." Most of us are familiar with the term "red hot" and the fact that "white hot" is even hotter. As a light source is heated, it will begin to glow red, then yellowish, and finally white as the temperature increases. White light actually emits equal parts of red, blue and green.

The proportion of red, green, and blue in white light is mostly determined by the exact temperature of the light source. The quality of white light is expressed in degrees Kelvin of the Celsius (Centigrade) scale starting at absolute zero.

To provide some frame of reference, a common house light bulb has a color temperature of about 2800

Table 1

Standards of Luminous Intensity and Their Color Temperatures

Source	Color Temperature (K)
Standard British candle	1930
Hefner lamp	1880
Harcourt Pentane lamp	1920
Acetylene lamp	2415
Incandescent carbon (4 watts/candle)	2080
Incandescent tungsten (1.25 watts/candle)	2400
Freezing point of platinum	2042

©Copyright Eastman Kodak Co.

degrees Kelvin, while sunlight, after being filtered by the atmosphere, is equivalent to about 6000 degrees Kelvin. Since the key to white light quality is the proportion of red, green, and blue light in it, any color temperature light source can be made to look like another by using appropriate color filters to shift the balance.

While the human eye can adjust (and compensate) for differences in color temperature of light sources, color film and video cameras cannot. Photographic film must be balanced in manufacture for the type of light source to be used (daylight, tungsten,

or flash). For example, color film labeled "daylight" will give reddish pictures if used indoors.

Video cameras have an advantage in that they can be used everywhere, but they must be adjusted to the light quality. To do this properly, one must know the characteristics of the lights one is using.

Tables 1 and 2 show color temperatures for some "standard" and practical light sources, as given in the Eastman Kodak book, *Kodak Filters For Technical and Scientific Uses*, (B3, Catalog #152 8108).

(continued on next page)

Dubmaster I Where Second Generation Dupes Inherit Their Good Looks.

Videotime presents: PGR Lab's Dubmaster I. Now your duplicated tapes can look their best with the new 3-in-1 Dubmaster I. Dubmaster I combines a Video Enhancer to increase detail and sharpness; a Video Stabilizer to secure incoming signals and eliminate vertical roll caused by pre-recorded movies*; and Automatic/Manual Fader to separate scenes and add a polished, professional look to edited tapes.

Mail check or money order for \$219.95 + \$3.50 postage & handling to: The Videotime Corporation, 48 Urban Ave., Westbury, NY 11590 or charge it to your MasterCard/Visa by calling toll-free. Dealer Inquiries Welcome.

1-800-645-2317

in NYS (516) 333-5300

THE VIDEOTIME CORPORATION

"WE'LL TREAT YOU LIKE A NEIGHBOR"



Only \$219.95

Plus \$3.50 postage and handling
NYS residents please add
7 1/4% sales tax

Dubmaster I features:

- 3 Video accessories in one compact unit
- 2 Video outputs to allow simultaneous multi-machine recording
- An Enhance/Bypass switch to allow comparison of adjusted picture
- 3-speed time delay auto fade
- LED lights to indicate functions in operation
- Attractive pressed steel cabinet with walnut finish on each end for durability and long life
- Full factory warranty

Dubmaster I

The compact solution to duping problems.

*Duplication of copyrighted material is illegal.

©The Videotime Corporation

Circle #26 on reader service card

VIDEO

36 Channel Up Converter for TV & VTR

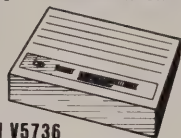
1-3 pieces

\$29⁹⁵ ea.

4 pieces & up

\$24⁹⁵ ea.

Model V5736



- Allows complete programming of VTR
- Watch or record any combination of standard or Pay-TV programs
- Receives Midband and Superband channels on UHF
- For Beta/VHS type recorders

BRUCE 37- Channel Wireless Remote Control TV Tuner

1-5 pcs.

\$109⁹⁵ ea.

6 pcs. & up

\$99⁹⁵ ea.

Reg. \$199.95

Commander 500



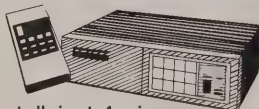
- For all channels; for all TV's
- Red LED channel readout 1-99
- Master power switch and fine tune controls on remote
- Easy to install
- Scan channels up and down

TEKNIKA Wireless Remote Control TV Tuner

\$109⁹⁵ ea.

Reg. \$169.95

Model 6301

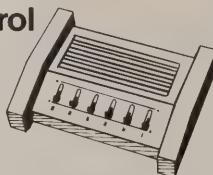


- Easy to install; just 4 wires
- Electronic channel selection and indication. VHF: 2-12, UHF: 14-83,
- Ultra-Infrared Beam Control
- Master power switch

Video Control Center

Model VTS-157

\$59⁹⁵



- No need to change cable to access input to TV set.
- One output; 4 inputs
- No AC power required to operate.
- Auxillary input and output.

CATV 30-Channel Remote Control

Model RSC- 8C

\$79⁹⁵

Consists of 2 units: remote control channel selector with fine tuning, ON/OFF switch; and converter body.

TV Accessories

7002 2 Set VHF/FM Amplifier **\$ 9.95** ea.

7004 4 Set VHF/FM Amplifier **\$ 12.95** ea.

Coax Accessories

DCS-A/B CATV/MATV Switch **\$9.00** ea.

FORDHAM

855 Conklin St. Farmingdale, N.Y. 11735

- Master Charge
- BankAmericard
- VISA ■ COD
- Money Order
- Check

ADD FOR SHIPPING AND INSURANCE COD's extra
to \$ 250.00 \$ 4.50
\$251.00 to 500.00 6.00
501.00 to 750.00 8.50
751.00 to 1000.00 12.00
over 1000.00 12.50

N.Y. State residents add appropriate sales tax

Minimum order \$25 plus \$4.50 shipping and handling.

TOLL FREE (800)645-9518

in N.Y. State call (516) 752-0050

Table 2

Selected Practical Sources of Illumination and Their Color Temperatures

Source	Color Temperature (K)	Reciprocal Color Temperature (MK ⁻¹)*
Sunlight (mean noon)	5400	185
Skylight	12000 to 18000	83 to 56
Photographic Daylight†	5500	182
Crater of carbon arc (ordinary hard-cored)	4000	250
White-flame carbon arc	5000	200
Flashcube, magicube or flipflash	4950	202
High-intensity carbon arc (sun arc)	5500	182
Clear zirconium wire-filled flash	4200	238
Clear aluminum wire-filled flash	3800	263
500-watt (photoflood) approx. 34.0 lumens/watt	3400	294
500-watt (3200 K photographic) approx 27.0 lumens/watt	3200	312
200-watt (general service) approx 20.0 lumens/watt	2980	336
100-watt (general service) approx 17.5 lumens/watt	2900	345
75-watt (general service) approx 15.4 lumens/watt	2820	353
40-watt (general service) approx 11.8 lumens/watt	2650	377

*Copyright Eastman Kodak Co.

Color Temperature

As one increases the voltage on a tungsten lamp, the color temperature goes up. Incandescent lamps for photo-flood are made up to 3400 degrees Kelvin and give a lot of light compared with the electric power used. The trouble is that 3400 K lamps only last a few hours.

Common household lamps operate at about 2400 to 2800 degrees Kelvin and are rated for 750 to 1000 hours of life. Most brands give the average

lumens (light output) and the average life rating printed on the package sleeve. The light efficiency can be determined by dividing the wattage rating into the lumens rating.

If the color video camera you are using does not have provision for adjusting the camera for other than 3200 K, you will have to use a filter over the lens to correct for the light source. Tables 3 and 4, again from Kodak's book, show various filters that can be used.

Table 3

KODAK WRATTEN Gelatin Filters for Color Temperature Conversion

Filter Color	Filter Number	Exposure Increase in Stops*	Color Temperature Conversion	Nominal Shift Value (MK ⁻¹)*
Blue	80A	2	3200 to 5500	-131
	80B	1 1/3	3400 to 5500	-112
	80C	1	3800 to 5500	-81
	80D	1/3	4200 to 5500	-56
Amber	85C	1/3	5500 to 3800	81
	85	2/3	5500 to 3400	112
	85N3	1 1/3	5500 to 3400	112
	85N6	2 1/3	5500 to 3400	112
	85N9	3 1/3	5500 to 3400	112
	85N	2/3	5500 to 3200	131
	85BN3	1 1/3	5500 to 3200	131
	85BN6	2 1/3	5500 to 3200	131

*These values are approximate. For critical work, they should be checked by practical test, especially if more than one filter is used.

*Copyright Eastman Kodak Co.

Common Screw Base Lamps

As the common household light-bulb is used, the tungsten filament evaporates and deposits a black coating on the inside of the glass bulb, which in turn reduces the light that comes through the glass. With household use, this light loss rarely creates a problem. For video lighting, this loss is a serious problem in maintaining controlled illumination.

But, the common lightbulb has a standardized screw base which gives

you the ability to use a large variety of available lamp types from reflector spotlights and floodlamps to high color temperature photoflood lamps, in the same fixture socket. When combined with low cost, ready availability, and the low light requirements of modern video cameras, an effective lighting set-up can be built up around fixtures taking standard screw base bulbs.

(continued on page 89)

You've invited all of your neighbors and friends over to see that great tape you recorded earlier. You're really going to show off your video equipment and this is the grand premiere. Everyone is seated in his proper place, the lights are dimmed for dramatic effect, the volume is set just right, you press PLAY and... nothing happens!

Has the machine failed? Have you neglected to do something you should have? What's the best way to determine what's wrong? Is it something you can fix? While your guests have headed to the kitchen for refreshments, let's take a quick run-through of the possible problems and solutions.

Finding the Problem

If, when you pressed PLAY, the reels of the tape did not turn:

- Check to see that the PAUSE mode hasn't accidentally been activated. Press the PAUSE button and see if anything happens.

- Check the VCR's timer activation switch to make sure the machine is in the manual operation mode.

- Make sure nothing is plugged into the VCR's remote pause jack (normally located on the back of the machine). Disconnect any camera-related equipment that might be connected, as this may cause the VCR to pause when the camera is shut off.

Do-It-Yourself Guide To VCR Repair ... and how to keep it from breaking in the first place

by Ken Elliot

- Excessive humidity may have caused the VCR's "dew" or humidity sensor to activate to protect the machine and tape. Most VCRs having this feature have an indicator to tell you that this protection circuit has been activated. Look for an unfamiliar indicator light that is lit, or something blinking. If this is the problem, you might as well join your guests in the kitchen. The machine will not start working again until it has dried out a little. A half hour in a normal temperature room should do it.

- Make sure your TV is tuned to the same channel as the RF switch on the back of your VCR, usually channel 3 or 4.

- Is the VCR's TV/VCR antenna select switch in the VCR position? It has to be in the right mode for the VCR's signal to be fed to the TV set.

- Press the STOP button on the VCR, put the VCR's TV/VCR mode switch in the TV mode, check that the Tuner/Camera (sometimes called input selector) switch is in the Tuner mode, and tune the TV to an active channel in your area. This will confirm that your TV set is functioning. If you can't receive a channel, check the various antenna connections from the antenna, to the VCR through to the TV. If you still can't get a channel, it's time to call the TV serviceman.

If your TV works, put the VCR's TV/VCR mode switch into the VCR posi-

Why pay a technician to make simple VCR repairs that you can do yourself? Here's how to troubleshoot your system, with step-by-step instructions on cleaning and replacing the video heads.



BLANK TAPE SALE

VHS, T120 (six hour), Ampex \$12.99 each. BETA, L500 (three hour), Ampex \$9.79 each.

No Minimum Order

Add \$3.75 for shipping & handling for each blank tape order regardless of quantity.

HOME VIDEO LOG

The ultimate solution for videotape organization. Regularly \$7.95 each plus \$1.50 for shipping and handling.

Only \$4.00 post paid when you order 10 or more blank tapes.

We accept phone orders for mastercharge or visa.

(805) 822-7184

or mail orders to:

Creative Video Marketing

Station 20A

P. O. Box "B"

Tehachapi, CA 93561

Circle # 8 on reader service card

Introducing commercial quality Satellite Television for your home.

Now Satellite Technology Services offers you the commercial expertise to engineer the precise satellite television system for your home.

STS stocks a complete line of top quality components at competitive prices with full warranties.

And STS insures you fast delivery with its "ready ship" inventory program.

For more information and our free brochure, call our toll free number.

1-800-325-4058

Satellite Technology Services, Inc.
11684 Lilburn
St. Louis, Missouri 63141

Dealerships may be available in your area.

Circle #25 on reader service card

tion and try playing a tape that you know is good. What do you see on the TV screen?

☐ If you see a good picture, you've confirmed that the tape you wanted to show has a defective recording or is itself defective. (Was the safety erasure-prevention tab removed prior to your trying to record?) Confirm this by playing another tape you know is good.

☐ If you see a somewhat distorted picture, it could be that your set's fine tuning is misadjusted. Turn off the set's AFT and turn the fine tuning knob a couple of turns in either direction. If it doesn't fix it one way, try turning it the other. If neither direction helps, put the adjustment back where you started.

☐ If the picture comes and goes or else has an interference line through it that won't go away, the tracking control on your VCR may be misadjusted. Try turning it one way or another and see if that fixes the problem.

☐ If none of these work, you almost certainly have a VCR problem. Read on.

With the VCR in the stop mode, choose a channel on the VCR's tuner that you know is an active station in your area. Did the channel come up on your TV screen? If it did, then you know your TV and the VCR's tuning system are operating, and you may have a problem in the tape playing elements of your VCR. If it didn't, you likely have a more serious problem with the VCR.

If you were able to play back a tape, that means that the playback portion of your VCR is working. You should then try to record a tape off-the-air to check out the recording function:

☐ First, check the tape you are about to record on. Be sure that the safety anti-erasure tab is still intact and not bent inwards or removed.

☐ Make sure the Tuner/Camera switch is in the tuner mode.

☐ Make sure the TV/VCR switch is in the VCR position.

☐ Select an active channel on the VCR. You should be able to see that channel on the TV set. If it appears distorted, check the VCR's fine tuning control for that station.

☐ With the tape in the machine, press PLAY and RECORD at the same time. (Some Beta format machines only require pressing RECORD.) Set

the counter to 0 so you can find this spot upon playback. Record a few minutes of the program.

☐ Are the VCR's reels turning? If not, check to see if anything is plugged into the VCR's remote pause jack. If so, unplug it. Some remote pause controls can be left in the PAUSE position accidentally and prohibit recording. Also, unplug any camera-related equipment that might be connected, as this could cause a similar problem.

☐ If the reels started to turn, but then stopped, eject the tape and try another. This symptom could occur if you have a defective cassette.

After you have recorded a few minutes of program material, rewind the tape back to the 000 point on the counter and press PLAY. If you get a

"If the picture seems snowy and contains a lot of interference, some dirt may have collected on the video heads."

picture, you've solved your problem by addressing one of the steps discussed. If you didn't get a recording, or it is improper or distorted in some way, check the tracking control and make sure it is centered. Tapes recorded and played back on the same VCR should work perfectly with the tracking control in the center or detented position. If not, there is a problem.

If this did not solve the difficulty or if you weren't able to play back a tape you're sure is good, you have a real problem that requires service.

Do-It-Yourself Servicing

There is not much in the way of in-depth servicing that the average VCR owner should attempt. VCRs are very complex instruments built to extremely tight tolerances. The smaller portable units are even more delicate. Any novice experimentation with the many adjustments without the proper test gear will likely make the problem

worse, instead of better. However, there are a few things you can do, if you're careful and follow these instructions . . .

Cleaning the video heads— Contrary to accepted practice with audio recorders, VCRs rarely need video head cleaning unless they have been used with poor quality videotape, or have many hundreds of hours of usage. Why? In audio recorders, the heads have a narrow gap which can collect dust, dirt, flaking tape oxide and other matter. In a VCR, the video heads don't actually have a gap. The actual space between the magnetic poles in the heads has been filled in with a substance which leaves the head's face almost perfectly smooth. There's nothing for dust, dirt, and other undesirable material, to clog.

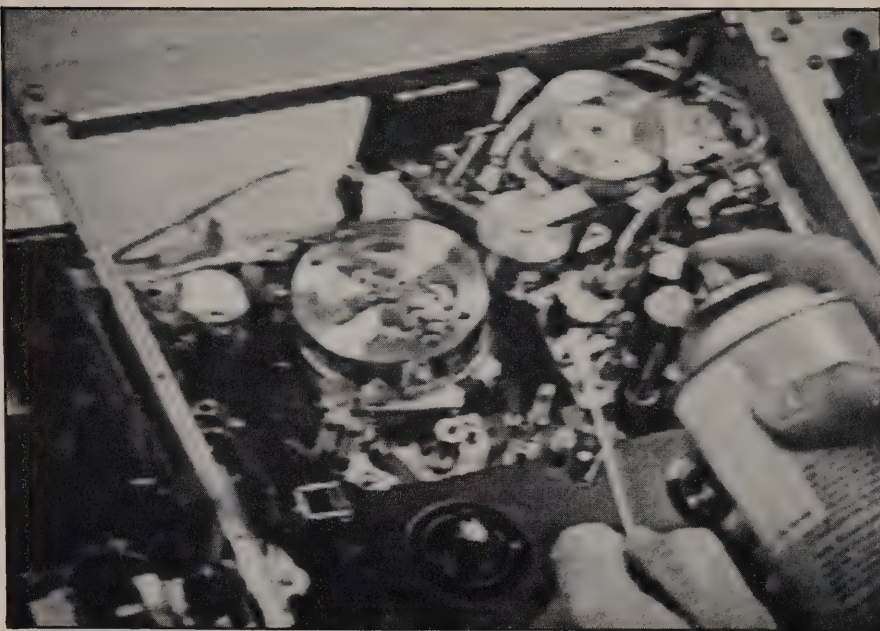
Additionally, in an audio recorder, the heads are static. In a VCR, the video heads spin around as part of the headwheel at 1800RPM. Dust and other dirt which may collect is frequently thrown off by the rotation. However, if the picture seems excessively snowy and contains lots of interference, some dirt may have collected on the heads.

Most VCR manufacturers warn customers against using head cleaning cassettes whose cleaning action is the result of rubbing abrasives against the video heads. The heads are not only fragile, but using abrasives will tend to make them wear down faster. Replacement heads are not inexpensive.

It is not recommended that you disassemble portable VCRs, because they are built to extremely tight tolerances, and the compact size of the internal elements makes them extremely susceptible to damage. But if you use a head cleaning cassette on a TABLETOP model, and the VCR's problem persists, you can try to clean the heads manually, by carefully doing the following.

1. Remove the top panel of the VCR to allow access to the mechanism. Line up the manufacturer's recommended cleaning materials— most suggest using a very soft, lint-free cloth like deerskin or chamois saturated with a low residue, non-petroleum based solvent (Freon TF™ is often recommended). These items are available from most electronics supply houses.

2. Once you have removed the top of the VCR (be sure you have unplugged it first) and have the necessary materials on hand, you can proceed



Using a low-residue, non-petroleum based solvent, wipe down the various tape guides, pinch rollers, capstans and other assemblies with a cotton swab.

by first cleaning the video heads and headwheel. Saturate the deerskin with the solvent and GENTLY hold the cloth against the headwheel while rotating it in the direction it normally turns. This will clean the heads. NEVER, NEVER wipe the heads up and down because you will likely destroy them.

3. When you have finished cleaning the heads, make sure you have also wiped the entire tape path on the headwheel to remove any tape residue, dust, grease etc. which may have collected.

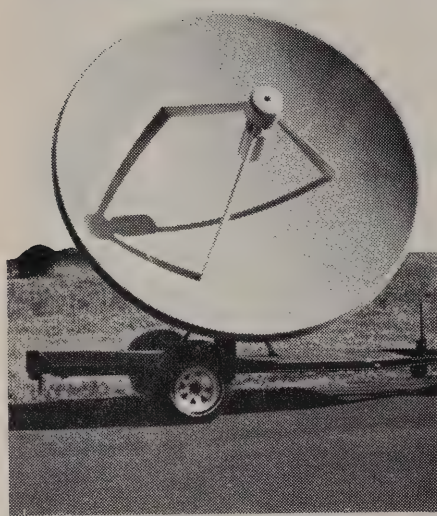
4. Using the same cloth and solvent, wipe the other heads—including the full erase, audio, control track and index cueing heads (some machines may have only some of these).

5. Next, you can use a cotton swab and solvent to wipe down the various tape guides, pinch rollers, capstans and other assemblies that handle the tape. Be careful not to leave any loose strands of cotton swab inside the machine. Do not remove grease from surfaces which must maintain lubrication (such as the threading gears and sliding arms).

6. Do NOT attempt to adjust arms, springs, etc. which may appear bent or loose. Many are supposed to be that way, and a wrong adjustment can wreak havoc with the proper operation of the unit.

7. Do NOT try to play a tape with the top of the machine removed. The top cover can provide support to cer-

Open up the sky...



**With complete
earth stations
from
Mid-America
Video**



Now you can get far better reception on your home television than you ever dreamed possible, with your own satellite receiving system. Receive programs from 11 satellites, unedited by network and cable services. View movies, uncut news, Las Vegas shows, sports events not on commercial TV and much more.

For more information, call toll free:

1-800-643-5514

Mid-America Video Corp.
P.O. box 511
North Little Rock, AR 72115
(501) 753-3555

tain tape path elements which require specific torque settings in order to work properly.

8. Carefully return the top of the machine to the instrument, tighten down all of the screws and plug the unit back in. If dirty heads were your problem, and you have followed the directions precisely, playback of a good tape should prove that you have done a proper job.

Replacing Video Heads—Much controversy has erupted over the length of life and cost of replacing the video heads in a VCR. These are the facts...

Virtually all VCR manufacturers indicate that video heads are expected to last over 1000 hours, provided they haven't been damaged or abused. All will readily mention that the life may be longer, but it is greatly dependent on the type of videotape that has been used. The key factor here is abrasiveness. If you are using off-branded, inexpensive tape, chances are it is more abrasive than high quality tape. Chances are also good that inexpensive tape will flake earlier, be uneven in its edge slitting, and probably be uneven in its coating thickness. All of these characteristics will cause premature head failure.

If you use abrasive head cleaning tapes excessively, you will also shorten head life. Use of your machine in extremely dusty, dirty environments will adversely affect head longevity as well. Don't allow dust and dirt to collect inside the machine. Keeping the unit covered when not in use is one of the best ways to keep dust and dirt out. It's not unheard of to get many thousands of hours of head life when the unit is used and maintained properly.

How can you tell if your video heads need replacing? Unless you are a technician and use an oscilloscope to watch the signals coming off the tape, you can't tell for sure. Try recording a tape and playing it back on a compatible VCR. If it plays well, then your heads are definitely fine and you have a different problem. If you can neither record nor play back a tape, your heads have several thousand hours on them, and cleaning has not cleared up a snowy picture, chances are likely that the heads are bad.

Can you replace them? Your chances are better on a VHS machine than on a Beta because VHS heads are replaced as part of a head assembly that is prealigned to some extent. Beta

machine heads don't have the same easy replacement arrangement. Therefore, unless you're sure you know what you're doing, it is not recommended that you try to replace the heads on a Beta format VCR.

As with head cleaning, it is not recommended that you attempt to replace video heads on a portable VCR, regardless of format. Disassembly of those units can be very involved and unless you are very knowledgeable and equipped with appropriate service data and test equipment, you had best leave the servicing to professionals.

If you are going to attempt head replacement on a VHS table model machine, first obtain the proper replacement head assembly. Some machines use two heads, some use four. Of those having two heads, some use two large gap heads (original 2/4 hour

"Virtually all VCR manufacturers indicate that video heads are expected to last over 1000 hours."

machines) and some use two smaller gap heads (2/4/6 hour machines). The retail cost will range from \$75 to \$150.

It would be handy if you could borrow a test tape from a local VCR servicer. Those tapes were manufactured under very tightly controlled conditions and are invaluable for testing and adjusting the VCR to assure interchangeability of tapes with other compatible machines. If you cannot borrow a test tape, find a tape you recorded on your machine in its slowest speed, preferably back at the time when your machine was new.

In the way of tools you will need a small Philips screwdriver, a small soldering iron and some solder. Here's the procedure:

1. Once you have taken the top panel off of the deck, locate the headwheel and notice that there are

several wires which exit the center of the headwheel on top, and are soldered to different locations. Draw yourself a diagram of the color coding of these wires and the exact locations to which they go. Then unsolder them.

2. Next, carefully unscrew the two Philips screws on the top of the headwheel and put them in a safe location.

3. Without touching the video heads, carefully remove the upper headwheel section containing the heads. It is press-fit onto the shaft and may require some light tugging to get it off. If it seems excessively tight, try aiming a stream of hot air from a hair dryer at the upper cylinder assembly to expand it. Do not use lubricants or oils.

4. Putting the removed upper cylinder assembly aside, pick up the new head assembly (being sure not to touch the video heads), and roughly align it with the appropriate color-coded wire connections. Then carefully align the holes in the new head assembly while dropping it into place on the shaft. The new wheel should slide on smoothly. If you aren't lined up correctly to allow screw insertion, lift the head assembly up carefully, realign it and place it in the proper position.

5. Solder the wires back onto the appropriate connections on the cylinder shaft.

6. Now replace the screws by grasping the head assembly firmly (don't touch the heads) and alternately tightening down the screws until they are quite firmly torqued. Don't overdo the tightening.

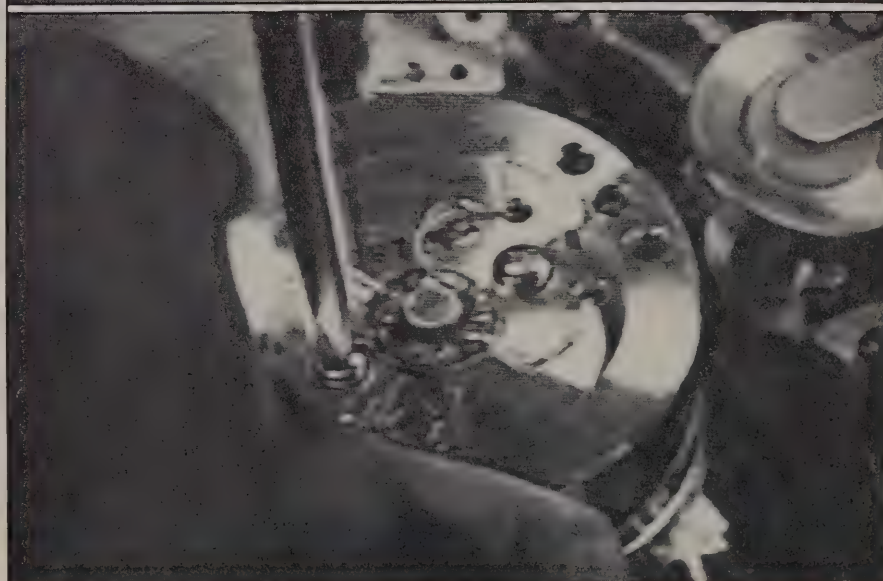
7. Thoroughly clean the new head assembly to remove any finger oils, smudges and dirt that collected during the procedure. Use a cotton swab and recommended solvent to clean the cylinder surface (other than the heads). Then use chamois or deerskin with solvent to clean the heads as described earlier in this article.

8. If you haven't cleaned the rest of the tape path as explained earlier, go ahead and do so.

9. Replace the top cover of the unit and the various screws holding it.

10. Plug in the VCR, connecting it to a TV set. Next, locate a previously recorded tape that is not a critical one—so that if something happens to it you won't mind too much. Put it in the machine and press PLAY.

(continued on page 96)



Before removing the headwheel, take note of the wires which exit its center, and are soldered to different locations. Next, unscrew the Philips screws on top of the headwheel, and gently remove the section. Replace the screws by grasping the head assembly firmly and alternately tightening down the screws until they are firmly torqued.



Camera Tubes . . .

Newvicon, Vidicon or Saticon—Making The Right Choice

by Ken Elliot

When considering the purchase of a car, you naturally look at what features and options are available—like AM-FM radio and cruise control. But of more basic concern is what's under the hood. Is the engine strong enough to provide passing power in highway traffic, climb steep hills, haul a trailer or other usages you might have in mind?

The same is true for a color video camera. The features can be great, but if the basic capabilities aren't good enough to support your requirements, you've wasted a lot of money.

The main component in the "engine" of a color video camera is the pick-up element. Not too long ago we might have said pick-up tube or vidicon; but times have changed. Now you have vidicons, saticons, newvicons and M.O.S. devices. Choose the wrong engine and you are in for disappointment. Here's what you can expect from the various tubes found in today's cameras.

Vidicons

Vidicons were the first pick-up tubes used in consumer color cameras. Early versions were of the 1-inch variety, but their large size made cameras that were larger, heavier and more power-hungry than was really practical in portable, battery-powered uses.

Then the $\frac{2}{3}$ -inch vidicon that is still being used in a large number of cam-

eras arrived. Its picture performance is outstanding and it has more palatable size, weight and power consumption.

The main disadvantage of a vidicon is its restricted low-light capability. Indoor shooting without extra lighting is disappointing unless you are in a very brightly lit room. Furthermore, at low light levels, the vidicon has a tendency to "burn." In camera lingo, burn means to retain the image of a bright object even after the camera has been pointed at another subject. This can generate an undesired ghostly effect.

A related vidicon disadvantage is called comet tailing or lagging. If you pan the camera past a bright light source, a streak will be seen following the path of the light. This will disappear after a while, but it can be an annoying disturbance in the picture until it does.

If you leave a camera pointed at a relatively bright light source for a while, you can actually ruin the vidicon by permanently imprinting a black spot on the screen location where the bright light was focused. The only sure-fire way to fix the camera is to replace the vidicon, a rather expensive procedure.

Don't get the impression that vidicon cameras are temperamental beasts that aren't worth having. Today's vidicons and surrounding circuitry tend to minimize the problems and provide excellent picture performance. Color reproduction with most vidicons tends to be very good with only slight errors in the deep red colors. There's one major advantage to vidicon cameras—the price. As a rule, these are the least expensive of the color camera

types, with prices as low as \$599 quite common for "stripped down" models.

Saticons

The next tube type to be used in a consumer camera was the saticon. Panasonic's consumer saticon is a version of a tube used in much more expensive broadcast cameras. The size, weight and power consumption are comparable to a vidicon type, but the cost is somewhat higher, ranging from \$800 to \$1300.

The saticon's main advantage over the vidicon is its reduced tendency to burn. Panning bright lights, or leaving the camera aimed at a relatively bright light source for an extended period will not yield a significant comet tailing or burn effect. Therefore, the likelihood of ruining the tube is lessened. This advantage is primarily a result of a different coating being used on the tube's target element—the part that changes the light pattern into electrical signals.

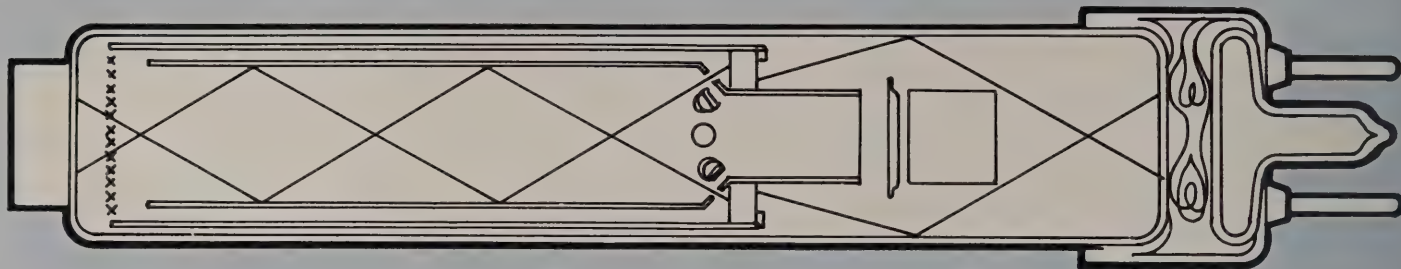
Theoretically, a saticon camera has better resolution capability than a vidicon. However, even if this is realized in actual production, the main resolution limitation in a videotaping situation is not the camera—it's the recording process. So, additional resolution capability in the camera is unnecessary.

The saticon's disadvantage (besides price) is reduced low light capability. It also requires additional lighting for good quality pictures in relatively low ambient light situations. Color reproduction is supposed to be on a par with vidicons, although several cameras we've tested have been greatly variable in color quality. ➡ ➡ ➡

"The main component in the engine of a color video camera is the pick-up element."

"Choose the wrong engine and you are in for disappointment."

"Theoretically, a saticon camera has better resolution capability than a vidicon."



Newvicons

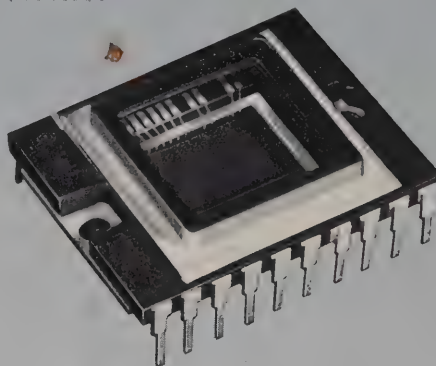
The latest technology in tube type camera pick-ups, offered last year by RCA, is the newvicon. Its size, weight and power consumption are on a par with the other types, but its low light capability is significantly extended. Again, this is due primarily to yet another type of coating used on the tube's target.

Minimum illumination for a good color picture is about 50 lux with the newvicon, versus about 100 lux with a vidicon or saticon. And that means that you will get a surprisingly good picture even in normal room light illumination. Our experimentation has yielded pictures on a monitor which appeared even brighter than the object appeared in real life. Of course, some of that effect is dependent on the picture settings of the monitor, but in any event, the picture quality is quite good in low light.

Like the saticon, the newvicon is virtually non-burning and won't comet tail. Even accidentally panning the sun should not harm the tube (please don't try aiming the camera at the sun). Color rendition on the units is quite good, with perhaps the only noticeable difference being somewhat less color saturation than with vidicons.

The price of a newvicon camera is somewhat higher than the saticon at

this time, ranging from about \$1000 to \$1400, but that's partly because it's a fairly new market entry. As production and availability increase, the price will probably tend to drop some—but don't expect it to end up at \$699.95.



M.O.S.

Hitachi has just rolled out the first color video camera to use an M.O.S. pick-up device. M.O.S. is an acronym for metal oxide semiconductor and as you might guess from the name, an M.O.S. device is not a tube. It is a solid state component composed of hundreds of thousands of tiny light receptor transistors in an array on a silicon "chip". The array forms a rectangular pattern.

As the image is focused on this array, each tiny transistor is scanned electronically to determine how much light has fallen on it. Via repetitive scanning, electronic pulses representing the image are generated.

Solid state image pickups should not comet tail or burn. And unless physically or electronically abused, the pick-up should last significantly longer than a tube. A tube is generally expected to last in the vicinity of 5,000 hours of use, while the solid state chip could last upwards of 100,000 hours. The M.O.S. device is also more rugged than a tube and can take bumps, bangs and abuse that some tubes cannot. However, don't be careless; the device may be more rugged, but the lens and other elements are not.

Unlike a tube with a filament which must be heated using battery power, the solid state device does not have a filament and power consumption is minimal. This can save about two watts of total camera power consumption and that means extended battery recording time with portable VCRs. It also means that there's no warm-up time required; a picture is available within just a fraction of a second.

The small size and weight of M.O.S. image pick devices also means a camera can be smaller and lighter than tube types. However, the difference will likely not be as great as many might expect because the major weight producing elements on a camera are the lens, viewfinder and assorted motors and circuitry needed to make the auto iris, motorized zoom and other automated functions work. For instance, the Hitachi M.O.S. camera

"Like the saticon, the newvicon is virtually non-burning and won't comet tail."

"Solid state image pickups should not comet tail or burn."

weighs in at approximately 4 lbs. A full-featured newvicon camera is about 5.8 lbs. However, a typical stripped down vidicon camera (still having an electronic viewfinder) weighs 3.3 lbs.

There are two basic disadvantages of solid state cameras we've seen. The first is low light capability. Although the printed specification for the Hitachi unit shows a minimum illumination of 100 lux (comparable to a vidicon) our impression is that the picture at that light level is significantly noisier than that of a vidicon. Therefore, lights are required for good quality, minimum noise and low ambient light pictures. With good light, the color quality we've seen has been quite good.

The second disadvantage is cost. The Hitachi camera lists for just over \$2000—about twice what a portable VCR costs. Undoubtedly the price will come down with time, but that's still a hefty price tag.

C.C.D.

There's one other pick-up device that's been talked about, but not yet marketed in a consumer camera. That's C.C.D. or Charge Coupled Device. It's also a solid state component which in use is similar to M.O.S., but is quite different in technology. RCA has demonstrated C.C.D. cameras at various times and they have been used in some industrial situations, but as yet no consumer camera has been marketed with the device.

What It All Means

If you are in the market for a color camera, stop and think which basic operating parameters are the most important to you. Low light capability, low power consumption, freedom from burn or lag, light weight, affordable price, etc. must all be considered. Once you understand what's "under the hood," you can weigh that against features and price, and make an intelligent purchase decision. ☆

Hitachi's Tubeless Wonder

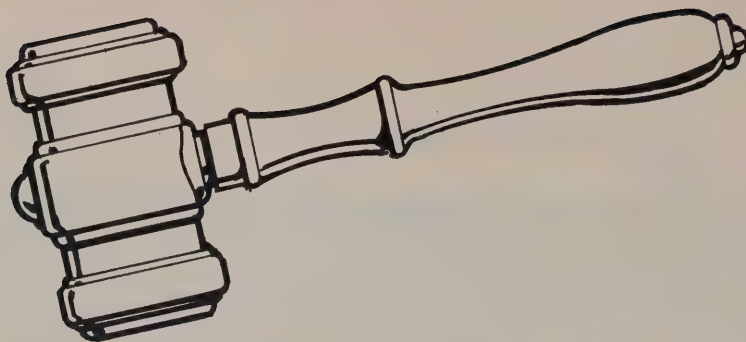


Hitachi's VK-C1000, the first consumer color camera without a tube, should be making its way into stores during the coming weeks. Though it carries a hefty price tag—\$2,095—some videophiles may find it well worth the added expense. Because it uses a metal oxide semiconductor (MOS) instead of a tube, the camera is not prone to lag or burn-in, which means if you focus on one image or a bright light for a long period of time, you won't damage the camera—or your videotapes. The single chip MOS image sensor, with a wafer configuration, is barely the size

of a postage stamp.

Weighing in at just 3.96 pounds, the Hitachi VK-C1000 features an f/1.4, 6× power zoom lens with macro setting; automatic iris; unidirectional boom microphone; and electronic viewfinder. According to Hitachi, and a demonstration we recently saw, an image appears within half a second after the camera is turned on.

Power consumption of the camera is 5.3 watts; minimum illumination is 100 lux; automatic sensitivity is 100-100,000 lux; horizontal resolution is better than 260 lines; and video signal-to-noise ratio is better than 46 dB. The lens is C-mounted, and the camera measures 2½" (W) × 4½" (H) × 6" (D) without electronic viewfinder and lens.



The Lowdown on the Sony Betamax Case:

Is Videotaping Programs Off-Air, In The Privacy Of Your Own Home, Illegal?

It looks as if the U.S. Congress will have the final say on the legality of your using a videocassette recorder to copy programs off-air, in the privacy of your own home. House and Senate bills are now in the pipeline on Capitol Hill, following last fall's 9th Circuit Court of Appeals decision which overturned a 1979 Federal Court's findings, and ruled that the videotaping of copyrighted television programs, at home, for private use, is a violation of the Copyright Laws.

"We find no Congressional intent to create a blanket home-use exception to copyright protection," the San Francisco-based appellate court's opinion stated; adding that VCR owners, manufacturers, distributors, retailers and even advertising agencies promoting the devices, were liable as contributory infringers for damages. The original suit was filed by MCA/Universal and Walt Disney in 1976; defendants are Sony Corporation of

America; Sony Corporation; its advertising agency; four Los Angeles retailers; and most

U.S. District Court Judge Warren J. Ferguson, who, in the 1979 decision favoring Sony

lic airwaves does not constitute copyright infringement. Such recording is permissible under the Copyright Acts of 1909 and 1976, and as fair use of the copyrighted works."

The Court admits that the question of damages is "exceedingly complex," and final decision in the case will undoubtedly be made by the U.S. Supreme Court. Hitachi's merchandising manager, Tee Yakura, doesn't believe restricting the use of home VCRs will work: "I don't see how they think they can enforce this . . . you are talking about an invasion of privacy in the home." Sony has alerted VCR owners to the urgency of the situation by placing the advertisement shown on this page in newspapers nationwide.

The off-air copying issue is sure to be in the limelight for months to come.

Here's more on where you, a VCR owner, stand—in light of the recent Court ruling, and the bills now in Congress.

What time is it?



That depends on how you look at it. Throughout history, man has continuously fought the battle against the dictates and restraints of time. It is, at once, both the enemy and ally of civilization.

The improvement of the human condition is a direct result of the creative management of time.

The benefits have been time to think, create, invent, and discover.

But time to think, create, invent, and discover has led to a world that is increasingly more complex and varied than ever before.

Time itself must be rearranged. And that is no longer an option, but a necessity.

Twenty-five years ago, a tool was created to rearrange time—the Video Tape Recorder.

It was the beginning of a new industry, and a new age.

Then, in 1965, Sony introduced the first Home Video Tape Recorder.

It allowed you not to be penalized if the schedule of your life didn't happen to coincide with the schedule of broadcast programming.

The Home Video Tape Recorder rearranged time to fit your schedule.

It evolved in 1975, to the Sony Betamax Home Video Cassette Recorder.

And as the world became more complex, the Betamax became more indispensable as a tool for the control and rearrangement of time.

The Betamax enables you to record television programming off the air, and play it back at your convenience.

Linked with a portable video color camera, you can even create your own library of family documentaries and memorable moments.

You can also buy or rent many different kinds of prerecorded programs to view whenever you wish. The Betamax enables you to have access to information and entertainment that might otherwise be missed.

Now, your freedom to use this tool is being threatened.

Recently, the 9th Circuit Court of Appeals reversed a trial court decision, and stated that the taping of television programs off the public airwaves, for personal, noncommercial use, is an infringement of the copyright laws.

In essence, the appeals court is saying that the many millions of people who are recording off the air are breaking the law.

Nothing is so powerful as an idea whose time has come.

And the Home Video Cassette Recorder is such an idea.

It enables people to have a mastery of time. It gives them an invaluable tool that truly enriches their lives.

Sony Corporation of America will continue to defend in court the consumer's right to use these machines and enjoy this marvelous technological innovation.

What time is it?

It's time to make the most of time. It's time to understand and reap the benefits of a new and wondrous technology. It's time to voice your opinion. What time is it?

What time do you want it to be?

Sony Corporation of America

© 1981 Sony Corporation of America, Sony and Betamax are Trade Marks of Sony Corporation

important of all, a VCR owner in Los Angeles.

The appellate court has turned the job of setting damages back to

and owners of home VCRs, ruled that "Non-commercial home use recording of material broadcast over the pub-

Q. What is the legislation being worked on by Congress, and how would it protect the VCR owner's right to tape programs off-air?

A. The House version, H.R. 4808, and the Senate version, S. 1758, would add a new section to Chapter 1 of Title 17 of the Copyright Act of 1976. This would amend it to allow an individual to record at home a broadcast of a copyrighted work on a videocassette recorder if the recording is made for private use, not for commercial use.

Q. Who on Capitol Hill is behind these bills?

A. Rep. Stan Parris (R-Virginia) introduced H.R. 4808 in the House on October 20, 1981. Among the 25 co-sponsors are Representatives Panetta (D-California), Udall (D-Arizona), Hansen (R-Idaho), Barnes (Maryland) and Martin (R-North Carolina).

Sen. Dennis DeConcini (D-Arizona) introduced S. 1758 in the Senate on October 21, 1981. Co-sponsors include Senators Thurmond (R-South Carolina), D'Amato (R-New York) and Gorton (R-Washington). Hearings by the Senate Judiciary Committee have begun.

Q. If the case goes to the Supreme Court, why is the Congress getting involved now?

A. An expert on copyright law said it best when he told the Senate Judiciary Committee's members: "The Supreme Court would be on the same shaky ground on which to base a decision as the lower courts have been. It could go either way and, in fact, it could even take several more years just to learn that the Supreme Court might refuse to hear the case." Amending the Copyright Law would be a faster, and a more sound means of protecting the VCR owner's rights to copy programs off-air.

Q. Do the studios really expect police to peer through VCR owners' windows, and levy a fine against them, arrest them, or confiscate the equipment if they're taping programs off-air?

A. No. In fact, Disney has announced that it has no intentions of going after the consumer, and other producers are thinking along the same lines. What they are looking for is some kind of remuneration for the programs that are taped at home.

"Surveys show that less than ten percent of videophiles record programs off-air with the intention of retaining them for repeated viewing."

Q. If they won't go after the VCR owners for payment, where will they turn?

A. Though consumers won't be reaching into their pockets to shell out the money directly, they'll likely end up paying in the end, anyway. If the Appellate Court ruling stands, it's possible that a royalty will be imposed on sales of videocassette recorders and/or blank tape. The money would be pooled, and the dollars divided among copyright holders according to a formula.

There is also the possibility that the VCR manufacturers will end up paying annual fees to copyright holders of broadcast programming. That cost, undoubtedly, will be passed on to the VCR buyer.

Q. Are there any copyright holders who have no objection to VCR owners taping their programs?

A. Yes. In fact, a number of owners of copyright material testified in court that they have no objection to consumers privately recording their broadcasts for home use. Among those which testified are the National Football League, the National Collegiate Athletic Association, Major League Baseball, the National Hockey League, National Basketball Association, and a number of educational, religious and other producers.

Q. Why do copyright holders of broadcast programs believe they're harmed if VCR owners tape their fare?

A. Surveys show that VCRs are primarily used for time-shifting, so that people can watch what they want to when they want to. Less than ten percent of videophiles record programs off-air with the intention of retaining these tapes for repeated viewing. But Sid Sheinberg, president of MCA Inc., summed up the producers' viewpoint at the Senate Committee hearing, when he maintained that copyright holders of broadcast programs would eventually get less for their programs from the networks because the measured audience at broadcast scheduled times would decrease.

Q. What is the bottom line. Am I in violation of the law if I tape a program off-air?

A. Because the Appellate Court turned the job of setting damages and considering an injunction back to the U.S. District Court, there is now no legal language that says you are breaking the law if you tape programs off-air. Even if there is a Supreme Court ruling that goes against the home copier, it is unlikely that the consumer will be liable for damages.

Home Satellite Earth Sta

Cooper on Satellites



ons: Forecast '82

by Bob Cooper



This year promises to be an exciting one for the home satellite earth stations, both in the political arena and the availability of new hardware. ➡



This new receiver comes with a down convertor model which may be mounted with the LNA at the antenna, as explained in the article.

minals for sale in the \$7,000 to \$12,000 range. And a wise buyer can find a system, with installation, for under \$5,000. Accordingly, the size of this industry is now starting to amount to something significant. Some suggest the industry may be turning out, and installing an average of 2,000 complete systems per month now; almost 25,000 home terminals per year.

People are now starting to take notice of home satellite terminals, and what's being noticed is making some of these people very nervous. That's the plot line for 1982 — nervous people who now "fear" the onrush of this new technology, because they're afraid their own sacred cow is going to somehow be gored by the private terminal revolution.

Late in November I was in Oklahoma City for a few days, minding some matters at our office there. As I left a local electronics store, I saw a very fancy 1982 Blazer pull up. Skillfully painted on the frosted glass windows was the name of a communications company. Beneath the name was the line that caught my eye: *Satellite Television Systems*.

The fellow who got out of the Blazer looked like a million dollars. He was

Just two short years ago the home satellite television industry was hardly an industry at all. It would be hard to describe a monthly sales figure of twenty anything, sold and installed, as an industry. But that is how big (or small!) the home satellite industry was just 24 months ago.

Very few people paid much attention to home satellite terminals in

those days. Clipping along at an annual sales rate of perhaps 250 home systems or so, they were a curiosity — not even in the class of being "the latest electronic toy." Neiman-Marcus, the high-ticket department store, listed one in their Christmas 1979 catalog. The price tag was just over \$36,000.

Many of the 1981 Christmas catalogs from American Express, Heathkit and a dozen others listed home ter-

ELVIS JUDY

THE LEGENDS LIVE ON!



Her star was born over the rainbow... His in a recording studio in Memphis. What made them legends was the way they dressed a lyric. Now you can have Elvis and Judy on video cassette and enjoy countless hours of quality entertainment, the likes of which may never be seen again.

"The Elvis Series" is a collection of his most memorable performances, both on television and in concerts, which include "ELVIS THE LEGEND," "ELVIS IN THE FIFTIES," "ELVIS 68 COMEBACK", AND "ELVIS 73 FROM HAWAII".

Performances of Judy Garland on video cassette include "THE JUDY GARLAND SHOW" and "THE JUDY GARLAND CHRISTMAS SHOW" and will give you hours filled with that special kind of charm and warmth that only a star of her magnitude could bring to you.

Elvis Presley and Judy Garland are now available through these fine distributors:



MAINE DISTRIBUTORS Bangor, Maine (207) 947-7396 • L.A. VIDEO Dix Hills, New York (516) 499-5317 • A&H VIDEO SHACK NYC, N.Y. (212) 489-8156 • VIDEO DISTRIBUTORS OF FLORIDA Fort Lauderdale, Florida (305) 961-3244 • SCHWARTZ BROTHERS Lanham, Maryland (301) 459-8000 • SOUTHLAND VIDEO Bartlett, Tennessee (901) 372-0180 • ROSCO TV Kansas City, Missouri (816) 444-7077 • R&S DISTRIBUTORS Westville, New Jersey (609) 848-0600 • ELECTRO VIDEO MARKETING CORPORATION Chicago, Illinois (312) 743-4444 • CENTRAL FILM LAB State College, PA (814) 234-5122 • MUSICAL SALES Baltimore, Maryland (301) 675-1400 • BABBIT DISTRIBUTORS Hallandale, Florida (305) 458-7771 • SIGHT & SOUND DISTRIBUTORS St. Louis, Missouri (314) 781-9273 • JIM ALLEN INC. Greensboro, N.C. (919) 274-5505 • COMTEK ELECTRONIC INC. New Jersey (201) 472-2440 • WESTERN VIDEO Carrollton, Texas 1-800-527-0960 • HUNTER DISTRIBUTORS Denver, Colorado 1-800-525-5817 • SOUTHLAND VIDEO Marietta, Georgia 1-800-554-1258 • BROMO DISTRIBUTORS Oklahoma City, Oklahoma (405) 521-0301 • SOUTHERN 1 STOP Hollywood, Florida (305) 925-0407 • ARTEC DISTRIBUTORS Shelburne, Vermont (802) 985-8401 • SOUND TREK AUDIO Metairie, Louisiana (504) 888-1608 • KING OF VIDEO 1-800-634-6143 or (702) 362-2520

King of Video®

A PUBLIC CORPORATION

the owner of the business, and told me how well he was doing. "I've been selling installed terminals for \$6,900, for 90 days now. The first month we sold and installed 29 terminals," he boasted. I drew a deep breath, and he continued. "Last month we did 57 terminals; 27 of those went to western

Oklahoma oil feed camps. I've got a contract that starts soon to do 44 more at oil field camps."

And so it goes. The United States is literally filled with pockets of people, scattered hither and yon, who are by virtue of their vocation or chosen lifestyle stuck off in the middle of no-

where. They miss access to live communications, real world television, the day's news events, and the big sporting events. This fellow had tapped his own oil well. He found that oil field workers wanted television entertainment in out-of-the-way places where there was no television.

Anyway you look at it . . . ADM HAS YOUR ANTENNA!

- Sturdy aluminum and steel construction
- 11' dish expandable to 13'
- Remote control rotating feed standard
- Polar mount with optional remote control drive
- Easy assembly and installation



Antenna Development & Manufacturing, Inc.

P.O. Box 1178, 2745 Bedoll Avenue, Poplar Bluff, MO 63901 (1-314-785-5988)

Circle # 1 on reader service card

King of Video



WE WANT YOU!

Join the fastest
growing Video Company
in America!

DO YOURSELF A FAVOR...

We have launched a million dollar campaign designed to bring together the cream of the crop in the video industry today. A major advertising campaign is in full swing and is part of our commitment to our distributors to sell ELVIS and JUDY, RKO, GOLD MEDAL and EROS QUALITY ADULT ENTERTAINMENT.

Point of purchase display materials, pamphlets, and advertising allowances have all been prepared to insure that we all reap the benefits of a well planned sales promotion. Join our alliance of successful distributors by calling Mr. Karl Shapiro, Director of Distribution, TODAY.

CALL TOLL FREE 1-800-634-6143

Circle #24 on reader service card

Cooper on Satellites

(continued from page 57)

The oil camps had been spending up to \$1,200 per month just for daily videotapes, usually a week old or more, to entertain and inform their workers. Not only was it expensive, but it was not a satisfactory system for their workers. They had radios and they knew the scores of the Sunday football games a week before they saw the tapes of the games. He told me there was a real personnel problem there and satellite television got the oil well firms off the hook with their employees!

This gentleman appeared to be selling two percent of the whole national volume in private satellite earth terminals per month! Better yet, he had been in the business only 90 days.

This kind of fever is contagious. It catches people who can grasp the importance of what is happening here, and it turns them into hard charging, aggressive (and yes, opportunistic) apostles. They in turn infect others, making the revolution spread like wildfire.

"Are you making any money at it?" I asked casually. He noted that he was clearing "a couple of grand per instal-

lation," and never had so much fun, nor made so much money, in all of my life."

It's no wonder, then, that private satellite earth terminals are now (after two years of getting started) a "threat"

"Anyone . . . who is not a recognized, authorized, 'receiving point,' has no legal right to intercept and divulge the 'contents' of that transmission."

to some of the "established" forms of mass communications. Because of this, there are some difficult times in store for this young industry in 1982.

The ice on which home terminals have built an industry foundation is at very best very thin. First, these "facts."

All of the geostationary/Clarke Orbit satellites which carry television programs or programming are classi-

fied, by U.S. and international agreement, as common carriers.

A common carrier is not the same as a broadcasting station. In fact, it is almost the direct opposite of a broadcasting station; by legal, regulatory, definition. A common carrier is licensed to transmit messages from one source to one or more specified receiving points. For example, from HBO in New York City (the source) to the cable television system in Gallup, New Mexico (the receiving point).

Anyone, whether an individual, a corporation, or whatever, who is not a recognized, authorized, "receiving point," has no legal right to intercept and divulge the "contents" of that transmission. That is what Section 605 of the Communications Act states. I have not made an interpretation here, merely paraphrased.

Now not all of the programming sources transmitting programs via satellite are concerned about this legal business. A few, in fact, act as if they were "broadcasting stations" (i.e., providing service to the public at large, rather than specified receiving points), and that's where part of the ice wears thin.

If every satellite program source had the same attitude about the na-

47st. photo[®] From Coast to Coast

At 47th St. Photo we believe in doing business the American way. Our reputation is based on •Honesty •Dependability •Lowest Prices. Whether you live in New York, Los Angeles or Gibsonia, you'll get unequalled prompt service. And if you're reading this ad, you're probably serious about your video needs. Perhaps not as serious as we are (unless of course you deal in millions of dollars worth of the finest video equipment).

So, just drop us a line explaining your video needs, and receive all the information you'll need.

Remember, our solid reputation is based on thousands of people like yourself — from coast to coast!

47th Street Photo Inc.

67 West 47th St. New York, N.Y. 10036

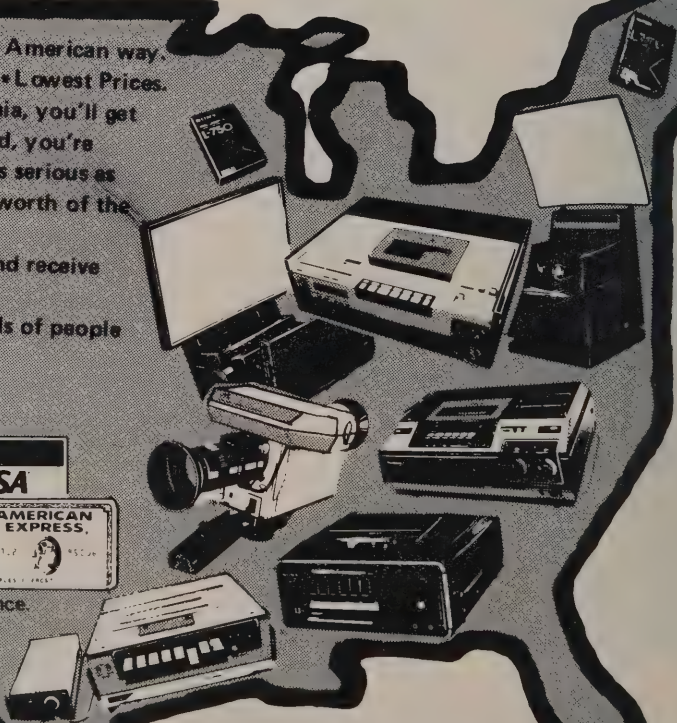
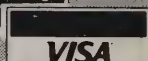
(212) 260-4410

Phone Orders and Information

OUT-OF-STATE CALL TOLL FREE

800-221-7774

All orders subject to verification & acceptance.



ture of satellite signals, the law would have clearly been violated when the first home satellite terminal was installed. I know; my family installed it in 1976.

So we have a group of mavericks in the ranks of satellite programmers; program sources (PTL, CBN, Trinity and others) who actually welcome and even encourage direct viewing of their programs, via satellite, by private homes. That's the loop hole which let private satellite terminals get started. People installed them "to watch PTL" (or whatever). And in the sanctity of your own home, if you happen "to stray" away from the PTL flock and tune in HBO, well, accidents will happen.

As long as only a handful of people were having this type of nightly "accident," the HBOs of the world were just not that concerned. But then during 1981 the home terminal industry grew up. And with a real ground swell explosion just getting up a head of steam, the HBOs of the world marshalled their forces and marched to Congress to seek help. They wanted (and asked for) a special-interest piece of legisla-

tion that would make it illegal to even own an earth terminal—PTL or no PTL.

Well, that got to first base but it got shot down trying to head for second. HBO et. al. were undaunted. They

"So we have a group of mavericks . . . who actually welcome and even encourage direct viewing of their programs, via satellite, by private homes."

backed up and put another hitter at the plate. This time they asked for legislation which would make it illegal to tune-in their transmissions, "accidentally" or otherwise. And they found a Congressman (Henry Waxman of California) to run their bases for them.

As this is being written, Congressman Waxman and his cohorts are

holding hearings in the House. They are trying to put together a piece of legislation that they want passed this year. It will, if passed, levy fines of up to \$250,000 (count the zeros) for tuning in a transmission which you have no authority to tune in. People evade their income taxes for decades and get by with lighter fines than that!

This is serious stuff. They have one objective in mind—to pull the rug totally out from under the seller of home TVRO terminals. They want a piece of legislation enacted which is so frightening that the would-be customer will think twice, maybe 200 times, before he plunks down \$6,900 for a TVRO to install at a Western Oklahoma oil field camp. The pay TV people figure if they scare would-be buyers badly enough, the growth of the private terminal industry will grind to a halt—instantly.

Naturally, there are opposing forces to this type of legislation. VIDEOPLAY has carried frequent reports, including a detailed question and answer feature discussing these very issues, as recently as November (1981). On the "good guys" side is something called S.P.A.C.E.; the Society of Private And

(continued on next page)

USED MOVIES
(AND NEW TOO!)

AT HUGE DISCOUNTS!

HUNDREDS OF GUARANTEED TOP QUALITY
LEGAL TAPES...RECENT FAMILY RELEASES
AND XXX RATED IN BETA II AND VHS.

**EXCHANGE
OR PURCHASE**

from

\$3500 USED / \$1000 USED

FREE CATALOG

72
PAGE
Movie Retailers Since 1975
DISCOTRONICS VIDEO, INC.
713 NORTH MILITARY TRAIL
WEST PALM BEACH, FLORIDA 33406
FLA (305) 689-2022
CALL TOLL FREE (800) 327-7309

**For their Satellite Feeds
Broadcasters Demand Hero Communications
Super 'Tenna Quality.**



The pioneers of the consumer Earth terminal market now offers a complete line of SUPER-TENNA SYSTEMS and Accessories

- 12 ft., 16 ft., and 20 ft. SUPER-TENNA SYSTEMS
- Lightweight, all aluminum antenna
- Micro-Grid surface for less wind load
- Fully motorized 'horizon to horizon' polar mount
- Custom designed systems for home and commercial applications
- No heavy machinery required for installation

Why take a chance on an unproven product?

Select the 'Field Proven' choice of the professionals.

For more information and the dealer nearest you, contact the 'professionals' at HERO COMMUNICATIONS OF FLORIDA.

HC HERO COMMUNICATIONS
A division of Behar Enterprises, Inc.

1783 W. 32nd Place • Hialeah, Florida 33012 • Phone: (305) 887-3203

February 1982

Commercial Earth Terminals. S.P.A.C.E. was formed nearly two years ago because some of the early pioneers in this industry foresaw just this precise scenario developing. They felt unless this young industry had a trade association that was ready, willing and able to fight this battle, sooner or later this battle would be the last one. The war would be over.

If the public did not want, embrace and love home satellite TV, we would have never matured beyond the hobbist level of growth we saw as recently as 1980. But there are truly thousands, yes millions, of "oil

field camps" (or pockets of people, isolated from the mainstream of America and Canada) scattered all over this continent. They never knew Walter Cronkite, never saw Prince Charles and Lady Diana wed, and wouldn't know Johnny Carson if they bumped into him on the street. Some (not all) of these people would like the opportunity to join the 20th century. It is fair to assume that if the U.S. commercial and public television networks were going to serve these people, it would have happened by now.

Satellite television service is that opportunity. To remove that oppor-

tunity from their grasp, after they have waited for 30 or more years, is not very sportsmanlike. To make them criminals for taking advantage of that opportunity is unthinkable.

Legislation such as that being proposed loses sight of one of the basic tenets of America—equal opportunity for all. It even hits closer to home than that. If oil field workers are made happy and content because they have access to real world television, that is to the benefit of each of us. If they are unhappy or discontent, sooner or later we are all going to pay for it when we pull into the neighborhood service station. No, that is not reaching, to make a point. It is a simple fact of life.

The real problem here, the one with which this young home satellite industry must somehow grapple and cope during 1982, is the backlash that is bound to come with the onrush of legislation and regulation. Making it a criminal offense, with fines and civil

AT VIDEOTIME WE BELIEVE THAT SHOPPING FOR VIDEO EQUIPMENT SHOULDN'T DRIVE YOU CRAZY.

At Videotime, great prices and super speedy service are what we are all about.

Our experienced sales staff will help you select the best video system available to suit your needs and budget and make sure you get the most for your money.

Videotime offers the largest selection of video recorders, cameras, tapes and

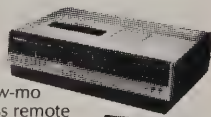
accessories anywhere— all factory sealed and guaranteed. Most importantly, Videotime's reputation for fast, courteous service is unsurpassed.

No overselling; No monies processed until shipment; Every order shipped from stock within 24 hrs.

Call us, we'll treat you like a neighbor.

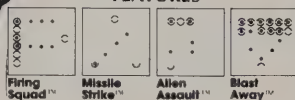
VIDEOTIME FEATURES THESE EXCITING PRODUCTS

Panasonic PV 1770
2,4,6 hr. VHS
9x scan variable slow-mo
Full function wireless remote



Game-Time™
4 exciting arcade games in a sporty LCD watch that pits you against the computer.

FEATURES

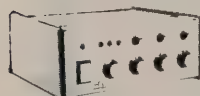


To order your Game-Time™ call toll free 1-800-645-2318

Scotch Brand
Beta and VHS



RCA CC011 Camera
8x power zoom, new vicon burn resistant tube, auto fade auto iris, macro



PGR Dubmaster I
Enhancer, stabilizer and fader all in one



All major brands, 3/4" and industrial video equipment; PAL and triple system recorders and TV's; Gusdorf TV/Video furniture; Comprehensive video supplies; Smith Victor tripods and light kits; PGR Lab's Dubmaster I; Vidicraft stabilizers and enhancers; Mattel and Atari computer video games and cartridges; Kapco 5 hr. batteries; Cable works adapters, cables and accessories; Bulk erasers; Alsop, Scotch and Fuji head cleaners; All lengths of blank video cassettes.

Wholesale/retail-Import and export

CALL THE EXPERTS AT VIDEOTIME

CALL TOLL FREE

1-800-645-2317

in NYS (516) 333-5300

THE VIDEOTIME CORPORATION

48 Urban Ave., Westbury N.Y. 11590

"People are now starting to take notice of home satellite terminals, and what's being noticed is making some of these people very nervous."

penalties of up to \$250,000 for tuning in the "wrong satellite transmission," is a case of overkill. It is like duck hunting with an atomic bomb.

All along the real solution to HBO's problem has been to put the duck in a suit of armor. Make it impossible for anyone to shoot the duck by protecting him. In the case of HBO (et. al.), they have had ample opportunity to protect their services by scrambling them. They have chosen not to do so because they would rather shift the burden of protecting their private property to the would-be shoplifters. That's probably good business, but it makes lousy legislation.

Some type of accord is going to be reached on this matter during 1982.

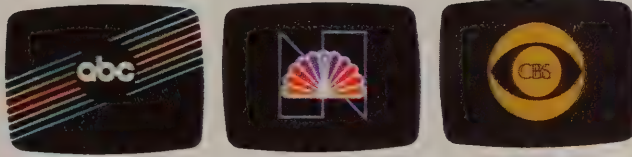
(continued on page 64)

PLAY IT AGAIN ON SCOTCH® VIDEO TAPE. THE NETWORKS DO.

Now the great heroes and the great performances can live again on Scotch® Videocassettes.

The networks tape the old classics and new favorites just like you do. They know that no other brand outshines Scotch video tape in the brilliance and clarity of its picture. And that no other video tape shows the true colors of a colorful drama better. That's why all three major networks use Scotch video tape.

Scotch Videocassettes are



manufactured with the same dedication to quality and attention to detail that goes into making the Scotch

video tape the networks use. That's why you should use Scotch Videocassettes for your permanent reruns at home.

\$2.50 CREDIT OFFER.

Buy a Scotch Videocassette (Beta or VHS) and receive a \$2.50 credit on a future purchase*. Details at participating dealers.

*Offer limited to cassettes purchased in U.S. and Canada for home use only. Limit 10 credits per household. Must be redeemed by April 17, 1982. Void where prohibited, taxed, or restricted.



SCOTCH® VIDEOCASSETTES. THE TRUTH COMES OUT.

3M

Circle #36 on reader service card

Guide To Programming Services Available Via

SATCOM 1 Transponder Service

1 _____ **NICKELODEON** - A wonderland of programs for the younger set.

1 _____ **ARTS** - Performing, visual and lively arts aimed at viewers especially interested in the fine arts.

1 _____ **MTV** - Round-the-clock stereo music featuring popular recording artists who sing and/or act out their songs.

2 _____ **PTL** - Provides 24-hour Christian entertainment, including talk, variety and children's shows, and drama specials from abroad.

3 _____ **WGN** - From Chicago's leading independent station, channel 9, comes a host of programming, including sports, specials, movies and syndicated shows.

5 _____ **THE MOVIE CHANNEL** - Movies, movies, movies... from early morn to early morn.

6 _____ **WTBSm** - Cable-oriented channel 17 from Atlanta offers family oriented programs, including sports, movies, syndicated shows and national/international news.

7 _____ **ESPN** - The sports buff's dream, it features 1400 NCAA events, and more.

8 _____ **CBN** - Non-stop Christian music, news, sports, children's and family entertainment, and free phone-in prayers and counseling for viewers.

9 _____ **USA NETWORK** - Touts 400 sports events annually, including weeknight coverage of the NHL, NASL, NBA, MISL and Major League Baseball; Calliope, with films for children; and the cultural series, The English Channel.

9 _____ **C-SPAN** - Live, daily coverage of the House of Representatives, Congressional Hearings and National Press Club Luncheons.

9 _____ **BET** - Films, sports, music specials and more, featuring black performers in major roles.

10 & 12 _____ **SHOWTIME** - Broadway and off-Broadway plays, first-run films, nightclub acts, original programming and more.

11 _____ **MTV** - Music Television, with non-stop stereo music featuring best-selling recording artists who sing and/or act out their songs.

14 _____ **CNN** - Ted Turner's 24-hour, up-to-the-minute sports, news, NYSE reports, features, interviews and weather.

15 _____ **SOUTHERN VIDEO NETWORK** - Regional sports channel, featuring intercollegiate athletics and entertainment specials.

16 _____ **ACSN** - Appalachian Community Service Network, offering public service-oriented programming, including college-level and continuing education courses for credit.

16 _____ **AETN** - American Educational Television Network, featuring evening continuing education courseware for professionals.

16 _____ **CMN** - Christian and family programming nightly, including drama, music, talk, movies and entertainment from many of the major demonstrations.

16 _____ **Episcopal Church** - Religious programs on Sundays, 6 to 8 p.m.

16 _____ **NJT** - Targeted for Jewish viewers, programs run the gamut from current affairs, to entertainment and religion.

17 _____ **WOR** - New York's independent station, channel 9, featuring lots of sports, as well as movies and shows from years gone by.

SATELLITE



COMSTAR D-2

18 _____ **GALAVISION** - Spanish language service featuring first-run movies, specials, novelas and sports from Mexico, Spain and Latin America.

19 _____ **SPOTLIGHT** - Non-stop pay-TV service featuring major motion pictures, specials, and a few foreign and classic films.

20 _____ **CINEMAX** - All-movie service complementary to HBO, offers time blocks devoted to women, children, families and adults.

21 _____ **HTN** - Chock-full of good, clean fun with G and PG movies.

22 _____ **HBO** - The well-known service that touts first-run movies, sports and specials.

22 _____ **CINEMAX** - Same as Cinemax,

22 _____ **MSN** - Daytime network offering information, opinion and entertainment programs.

23 _____ **CINEMAX** - Same as Cinemax, transponder 20.

24 _____ **HBO** - Same as Home Box Office, transponder 22.

6 _____ **BRAVO** - Another cultural service, touting musical events from Carnegie Hall and cultural centers worldwide, as well as jazz festivals and lavish productions from opera and ballet to the latest modern dance troupes.

7 _____ **ESCAPADE** - R-rated movies and specials featuring adult-oriented action.

7 _____ **NCN** - Religious programs for all denominations.

13 _____ **CINEMAX** - All-movie service complementary to HBO, offers time blocks devoted to women, children, families and adults.

17 _____ **TBN** - Non-stop religious programming.

18 _____ **HBO** - The well-known service that touts first-run movies, sports and specials.

WESTAR III

9 _____ **PRIVATE SCREENINGS** - Late night adult programs offering "plenty of sex, but no X."

11 _____ **CBS CABLE** - New Cultural programming service offers music, dance, drama, opera and comedy, as well as literature, art, politics, fashion, photography, science and philosophy.

15 _____ **SIN** - Spanish programs, from variety to sports, and news to drama. Live transmissions from Puerto Rico, Venezuela, Mexico, Spain, Argentina, Brazil and Chile.

17 _____ **SPN** - Around-the-clock movies, talk, celebrity, music, public affairs, financial self-help and syndicated programs. Telefrance-USA aired three hours daily.

17 _____ **SPN-2 (Satellite Program Network)** - Around-the-clock movies, talk, celebrity, music, public affairs, financial self-help and syndicated programs. Telefrance-USA aired three-hours daily.

23 _____ **EWTN** - Daily walk with Jesus through programming that includes locally and nationally known speakers; university in the sky; teachers; lay people; and clergy.

Cooper on Satellites

(continued from page 60)

And however that accord shakes out, it will set the industry's course for many years to come.

If legislation of the Waxman type is adopted, let's see what could result. First of all, less the severe fines, the Canadian government attempted the same type of massive retaliation during 1980. Communications Minister Fox attempted to get everyone with a private earth terminal (variously estimated between 3,000 and 5,000) in Canada to license it, or shut it down. Nobody did either. And the Canadian equivalent of America's oil field camps — logging camps, where American TV satellite-watching is next to having a good supply of cold beer, rose up in arms. One camp, in Ontario, met the federal authorities at the airstrip for camp with loaded rifles and solid chunks of two by four. The authorities left without confiscating the TVRO they had come for. Late in 1981, Minister Fox repented. He now says that the "official" Canadian policy will allow anyone, private or camp, to have a TVRO.

Armed rebellion over television may not be the right answer in the United States, but active resistance can certainly be anticipated. I would hate to be charged with the responsibility of going into an Oklahoma Oil Field Camp and shutting down their satellite TV terminal.

Frankly, HBO (and other programmers) have waited too long to play their hand. If they were going to shut down private terminals by scaring would-be-buyers, they should have snuck this one through back in 1979 or early in 1980. For the record, they did try in 1980, and they failed. S.P.A.C.E. out-maneuvered them on the issue and bought sufficient time so that now there are significant numbers of influential people and business firms who have had their lives (and businesses) touched by satellite television.

What if there is a piece of massive overkill legislation adopted? Well, one of the clever angles in the Waxman piece makes the manufacturer liable for "aiding" the "crime." By producing a piece of equipment which has the "capability" of violating the law, the manufacturer becomes an accomplice of sorts. That's a tough one to handle. It is one thing to be an oil field camp manager and to tell a federal marshal to leave the TVRO alone. It is quite another thing to be a manufacturer of the equipment, and to have a federal marshal standing there to tell you that you cannot ship the equipment to anyone who is not an "FCC authorized user."

Yet for all of the illogic of this scenario, there is a serious problem which must be addressed. The HBOs of the world are not going to simply drop the issue and walk away from it.

They feel, with some justification, that what is theirs . . . is theirs, and they have a right to protect it from misuse. Even if they lose with the proposed Waxman legislation, they will hardly give up.

"... penalties of up to \$250,000 for tuning in the 'wrong satellite transmission,' is a case of overkill. It is like duck hunting with an atomic bomb."

Unfortunately, they have been very narrow-minded about all of this. Not only will they not give up, they also refuse to deal directly with the private terminal industry. S.P.A.C.E. has repeatedly offered to work out a royalty or payment schedule or even a point of sale licensing program to insure and guarantee that HBO (et. al.) does get paid for this "accidental" use of their programs by oil field camps and others. But several programmers, including HBO, have refused to even enter into negotiations with S.P.A.C.E. on this issue. They simply refuse to grant such authority to anyone or any firm that is not a cable television system or MDS operator. They won't even negotiate, let alone deal.

Given HBO's refusal to deal, plus their refusal to protect their own property (i.e. scrambling), their (and others)

Satellite TV Systems



**HAMILTON
SATELLITE
SYSTEM,
INC.**

WE MANUFACTURE: WE STOCK:

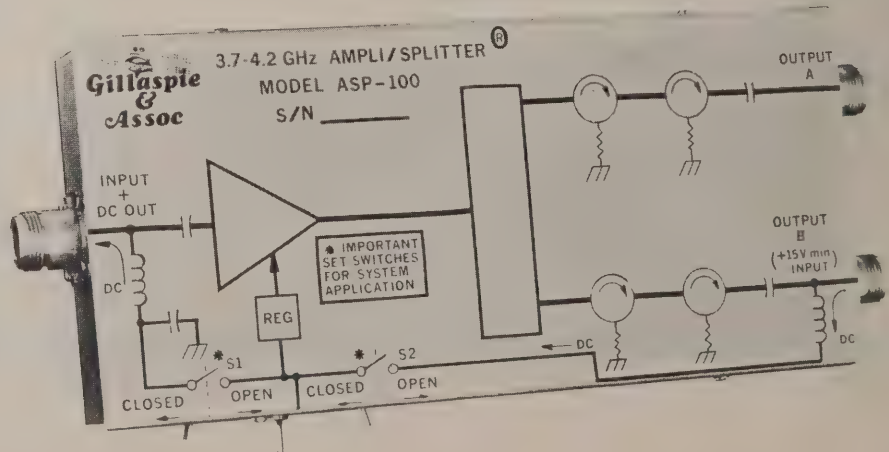
- | | |
|----------------------------|----------------|
| • Parabolic Dishes | • Comtech Data |
| • Polar Mounts | • Teknimat |
| • Demo Trailers | • Dexcel |
| • AZ/EL Mounts | • Avcom |
| • Computer Control Systems | • TLSystems |
| • L.N.A. Holders | • Vitalink |
| • Feed Horns | |
| • Cable and Fittings | |

Call or write for our latest brochure and prices

**HAMILTON SATELLITE
SYSTEMS, INC.**

1101 E. Chestnut Street, Suite A
Santa Ana, California 92701
(714) 543-5217

Want to view 2 programs from satellite at once? This unit will give it to you.



position vis a vis dropping atomic bombs on lonely ducks is at best suspect. It makes one wonder what sort of grand, futuristic game they are really playing here. One thing is apparent—private home terminals,

“Given HBO’s refusal to deal, plus their refusal to protect their own property (i.e. scrambling), their (and others) position vis a vis dropping atomic bombs on lonely ducks is at best suspect.”

tuned into the present 4 GHz family of satellites, do not fit into that game plan. We’ll hypothesize on this scenario further before 1982 is over. How it all works out is decidedly of considerable importance to my friend selling TVRO terminals to oil field camps. And it’s likely of interest to you as well. ☆

New Equipment in the Wings . . .

If the transition from a quasi-legal status to some yet-to-evolve legal status is not sufficient excitement for 1982, the new equipment now coming on board will fill the gaps. This will be the year of the Japanese equipment invasion, and the year of the LNC (low noise convertor). The Far Eastern electronic plants have been carefully watching the development of our largely-U.S. technology for the past two years now, and as the monthly equipment flow has edged up to, and past the 2,500 mark, a “trigger” has clicked. The first Japanese firms to enter the field this year will be communications equipment firms, such as Yaesu. High technology receivers with the fine Japanese touch are al-

ready in the pipeline, headed for U.S. distribution.

The LNC is another story. Remember that present-day installations consist of an antenna-mounted signal pre-amplifier called an LNA, or low noise amplifier, and then a receiver. Recently, many of the receivers have become two-piece. A part described as a down-convertor has been stuck outside the antenna, while the tuning controls and video sections have remained indoors at the viewer’s receiver.

LNC is short for low noise convertor. What it really does is two things. It low noise amplifies the weak satellite signals as an LNA does, and then it (continued on next page)

AMERICA'S LARGEST SELECTION

MALE VIDEO

PRE-RECORDED TAPES
Featuring the best of:

BRENTWOOD ★ MAVERICK
RAM ROD ★ T.M.X. ★ GAGE BROS.

OVER 300 TITLES FROM EVERY
CORNER OF THE WORLD IN OUR
RETAIL STORE

COUPON SPECIAL

STARRING IN:
The Fabulous **CHRISTY TWINS** AND **Busy Boys**
only **\$79.50** EA Incest
plus \$3.00 shipping per tape

24 HOUR TOLL FREE NUMBER

1 - 800 - 421-0644
OUTSIDE CALIFORNIA

NEW! 1982 CATALOG - \$5.00
ORDER YOURS NOW!

VIDEO TAPE EXCHANGE
(213) 654-7000

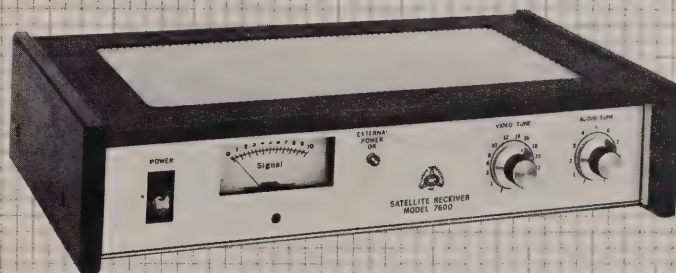
1440 N. Crescent Hts., L.A. 90046

☐ RETAIL ☐ DEALER ☐ MALE ☐ XXX
☐ American Express ☐ Visa ☐ MasterCard
☐ BETA ☐ VHS Dept V

Name _____
Address _____
City _____
State _____ Zip _____

Circle #35 on reader service card

The Vanguard



Introducing the Model 7600 Satellite Receiver. New from Gillaspie and Associates. Proof positive of a new generation in satellite receiver technology: the successful integration of the most sought after high performance characteristics and ease of operation capabilities. Attractively packaged. Affordably priced.

See it today and experience the difference performance makes.

- FULL FREQUENCY tunable audio
- Reception 3700 to 4200 MHz
- Built-in video modulator
- Simplified channel tuning
- Improved video sensitivity
- All wood walnut cabinet

The Model 7600 Satellite Receiver System Package comes with its antenna mounted Image Reject Mixer (Down Converter), 100' of RG59-U cable and 100' of Belden DC cable with connectors installed.



Gillaspie & Associates

950 Benicia Ave., Sunnyvale, CA 94086 (408) 730-2500

GET THE LAST WORD FIRST!
SEE YOUR GILLASPIE & ASSOCIATES DEALER TODAY!

Circle #15 on reader service card

down-converts the satellite frequency microwave band signals down to a lower (IF) channel. In effect, it does part of what the receiver has always done.

The LNC units are being made by the same firms that manufacture the LNAs. This is logical; the technology that goes into an LNC is really all microwave technology. It follows, then, that a firm that has expertise in the microwave area would like to manufacture every part of the TVRO system which requires microwave expertise.

The LNC will have strong impact on the marketplace. If everything that requires microwave technology is to come from microwave people, that

will change the engineering complexion of the basic receiver unit. Now for the first time, the receiver people can concentrate on bells and whistles. They can forget all about the complicated and often awesome microwave part of the system entirely. This will open up an entirely new type of market for TVRO receiver manufacturers.

The industry closed out 1981 with a monthly shipping capacity of just under 2,500 complete systems. Virtually everything that could be built was being sold by the established manufacturers. Additional sales capacity was limited by the LNA manufacturers; they were simply not able, as a group

of four suppliers, to crank out more than 2,500 home terminal LNAs per month. And since each installation requires at least one LNA, that factor alone has determined the rate of growth of the industry.

During 1982, the "crunch" for LNA supply will probably get worse, rather than better. It is believed that perhaps the LNA suppliers might increase their production capacity to 4,000 units per month, for an annual volume in the 50,000 range. However, not all of the LNAs will be LNAs as we wind up 1982. A substantial part of the production capability will siphon off for the production of the LNC units. One major supplier, National Microtech, is planning to take delivery of 2,000 LNC units per month starting this fall. That ought to tell you something about the rapid growth of the industry, and the pressures that are building for quality hardware.

This year, then, will be a transition year for the industry. New legal problems and new equipment supply problems will push the industry's ability to cope with its tremendous growth to its very limit. It will be an interesting time for all participants. ☆

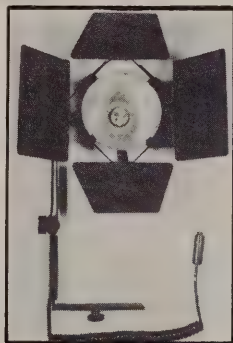
Satellite Television Technology will hold a three-day National Satellite Opportunities Conference in Fort Worth, Texas, March 26, 27 and 28. A 60,000 sq. ft. facility will be filled with more than 100 TVRO equipment displays. During the three days, there will be 15 seminar-type training sessions designed to teach new entrants into the field how to operate a dealership in TVRO equipment. For full information, contact Rick Schneringer at STT, P.O. Box G, Arcadia, OK 73007; 405/396-2574.

LEARNING MORE ABOUT HOME SATELLITE RECEPTION

Satellite Study Package—Includes "Home Satellite TV Reception Handbook", written by Bob Cooper, and color, two-sided "Worldwide Satellite Systems Wallchart", showing the operating location and characteristics of all of the major television carrying satellite systems. Order from Satellite Television Technology, P.O. Box 2476, Napa, Ca. 94558. Price is \$15 in U.S., Canada, Mexico; \$20 elsewhere, in U.S. currency only.

Coop's Satellite Digest—Monthly business/technical journal of home satellite industry. Sent via first class mail (airmail overseas). Sample copy \$5 (\$7.50 outside U.S., Canada) and 12 month subscription \$50 (\$75 outside of U.S., Canada, Mexico). Order from CSD P.O. Box G, Arcadia, OK 73007.

CINEMA IV INTRODUCES THE FIRST 2000 HOUR LIFE 12 VOLT 100 WATT QUARTZ PORTABLE LIGHT SYSTEM



Not only does our PRO-QUARTZ 2000 light last 50 times longer than most other systems, you also receive additional savings of \$800 in bulb replacement costs.

Cinema IV PRO-QUARTZ will last approximately one hour with either optional Cinema IV Porta Power or Porta Power 2 battery packs.

Shoot indoors with professional quality. The Cinema IV is housed in a 5½" hammered and polished reflector with barn doors and mounted in a U-bracket designed for camera mounting.

1. 12 Volt 100 Watt Quartz Light
2. 2000 hour live quartz bulb
3. 5½" hammered polished reflector (gives soft even light)
4. Barn doors to adjust light focus (removable)
5. U-bracket to mount camera gives "mini-cam" feel
6. 5' heavy duty curly cord
7. can be mounted on tripod
8. light head tilts up or down & locks to hold angle
9. weight 22 ounces
10. 1 year parts & labor guarantee

THE 5-HOUR RECHARGEABLE BATTERY PORTA POWER



Easy to use with all Portable Video Recorders

Porta-Power offers you these outstanding features:

1. Charges overnight (12-16 hours); recharge with the exclusive Cinema IV Porta Power multi-staged, semi-permanent 800MA charger. No need to ever worry about overcharging.
2. Built-in fuse to prevent electric hazards from misuse or accidents.
3. Eliminates the need to carry the tuner/charger.
4. Can be used with any portable video system.
5. Rechargeable through auto cigarette lighter (optional).
6. AC charger included.
7. 6-foot car cord included.
8. Shoulder strap and handy belt loop included.
9. Battery charge check lamp (red-green LED) included.
10. Has given over five hours of recording time with RCA VFP 170 and the RCA-011 color camera.
11. 12 volt 10 amp battery.

NOW ONLY \$169.95!

Cinema IV

1812 West Bay, Newport Beach, CA 92660 (714) 770-8874

Dealer and Distributor Inquiries Invited

International Inquiries Invited

VIDEOPLAY

SUBSCRIPTION ORDER FORM

Yes!... Sign me on as a subscriber to the bi-monthly **VIDEOPLAY** at the rate of ☐ \$6 for 6 issues, ☐ \$12 for 12 issues, or ☐ \$18 for 18 issues. (Outside the U.S. add \$1 in U.S. funds per issue.)

☐ Payment is enclosed ☐ Bill me ☐ Charge to my: ☐ Visa ☐ Master Charge
Card No.: _____ Expiration date: _____

Name: _____

Mailing address: _____

City: _____ State: _____ Zip: _____

1. Do you now own a VCR? ☐ Yes ☐ No
2. Do you own a video camera? ☐ Yes ☐ No
3. In the next 12 months, do you plan to purchase (check those which apply):
☐ VCR? ☐ Video camera? ☐ Videodisc player? ☐ Pre-recorded programming?
☐ Yes ☐ No ☐ Yes ☐ No
4. Do you own a stereo system? ☐ Yes ☐ No
5. How many people are there in your household?
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 or more
6. What is your age? ☐ 16-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56-65 ☐ 66 or older

Signature: _____ Date: _____

February 1982

READER SERVICE CARD

February 1982 (Valid through March 31, 1982)

Circle the number of the product or advertisement in which you are interested, fill out the blanks on the bottom of the card, and mail. No postage is required.

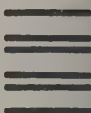
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45
 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60
 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75
 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105
 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120

Name: _____

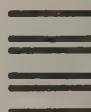
Address: _____

City: _____ State: _____ Zip: _____

1. Do you own a VCR? ☐ Yes ☐ No ☐ Which format? ☐ VHS ☐ Beta ☐ 3/4"
2. When did you buy it? ☐ 1976-7 ☐ 1978-9 ☐ 1980-1 ☐ 1982
3. How many videocassettes do you own?
 Pre-recorded ☐ 0-11 ☐ 12-24 ☐ 25-49 ☐ over 50
 Blank or re-usable ☐ 0-11 ☐ 12-24 ☐ 25-49 ☐ over 50
4. Do you use your TV system for video games? ☐ Yes ☐ No
 If so, how many different games do you own? ☐ 1-11 ☐ 12-25 ☐ Over 25
4. Are you interested in Satellite TV? ☐ Yes ☐ No
 If so, at what retail price would you consider a satellite system?
☐ \$6000 ☐ \$4000 ☐ \$3000 ☐ \$2000
6. Is your VCR connected to a cable or subscription TV system? ☐ Yes ☐ No



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 587 DANBURY, CT

POSTAGE WILL BE PAID BY ADDRESSEE



Attn. Subscription Dept.
C. S. Tepfer Publishing Co., Inc.
51 Sugar Hollow Road
Danbury, CT 06810



BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 587 DANBURY, CT

POSTAGE WILL BE PAID BY ADDRESSEE



Attn. Reader Service Dept.
C. S. Tepfer Publishing Co., Inc.
51 Sugar Hollow Road
Danbury, CT 06810



BLAST OFF! TO SUPER PROFITS with these SCIENCE-FICTION VIDEO CASSETTES from The Nostalgia Merchant



Space adventures...
monsters from Mars...
rampaging robots ...and
sinister body snatchers!!
They're all here in these
all-time sci-fi classics!

And don't forget that only The
Nostalgia Merchant offers such
an extensive selection of
science-fiction videocassettes!

Stock up today for the rocket-
powered profits from these super
sci-fi flicks!

To place your order, contact your
local Nostalgia Merchant distributor,
or phone (800) 421-4495.

CONTACT YOUR LOCAL NOSTALGIA MERCHANT DISTRIBUTOR FOR THESE SUPER SCI-FI FLICKS

A. B. DIST.
Minneapolis, Minn. 55407
612-824-0715
AVS
Sykesville, Maryland 21784
301-795-3000
ARTCH DISTRIBUTORS
Shelburne, Vermont 05482
802-985-8401
BRONCO DISTRIBUTORS, INC.
Oklahoma City, Okla. 73146
405-521-0301
BROOKS DISTRIBUTORS, INC.
Atlanta, Ga. 30318
404-351-9816

COMETRON CORPORATION
Des Moines, Iowa 50321
515-244-8233
Congers, N.Y. 10920
914-268-4426
Houston, Texas 77036
713-780-2550
Santa Ana, Calif. 92704
714-751-9011
P.O. Box 58544
1020 Andover Park West
Tukwila, Wash. 98188
206-575-3667
College Park, Georgia 30337
404-996-5771
Solon, Ohio 44139
216-248-1660

DAILEY, INC. (H.W. DAILEY)
Houston, Texas 77018
713-961-9251
INTEGRITY ENTERTAINMENT CORPORATION
Gardena, Calif. 90249
213-538-2314
LONGS ELECTRONICS
Birmingham, Alabama 35233
205-252-7580
MAJOR VIDEO CONCEPTS
La Mesa, Calif. 92041
714-463-5545
MSD AMERICA DISTRIBUTORS
Kansas City, Mo. 64114
816-444-7077
BILLS IN ONE STOP
Denver, Colo. 80223
303-629-1960

PICKWICK
Opa Locka, Florida 33054
305-685-7801
RADIO ENGINEERING SERVICE, INC.
Omaha, Nebraska 68127
402-339-2200
ROCKY MOUNTAIN VIDEO
Denver, Colorado 80222
303-692-0970
SCHWARTZ BROS.
Lanham, Md. 20801
301-459-8000
SOUND DISK-TECHNICS
St. Louis, Mo. 63117
314-781-9280/9273
SOUND/VIDEO UNLIMITED
Niles, Illinois 60548
312-674-0800/800-323-4243

SOUND/VIDEO UNLIMITED (Cont.)
New York, N.Y. 10019
212-489-8130
N. Hollywood, Ca. 91605
215-985-7602
Dallas, Texas 75207
214-698-9300
SOURCE VIDEO
Nashville, Tenn. 37221
615-356-6600
SOUTHERN ONE-STOP
Hollywood, Florida 33020
305-925-0407
SOUTHLAND VIDEO WHOLESALE
Bartlett, Tenn. 38134
901-572-0181
Marietta, Georgia 30067
404-953-9699; 800-554-1258
Farmer Branch, Texas 75234
214-484-7255

STAR VIDEO ENTERTAINMENT, INC.
New York, N.Y. 10001
212-756-3035
VTE MOVIE DISTRIBUTORS
Pittsburgh, Penn. 15216
412-343-9334/261-2436
VIDEO ARTISTS, INC.
Minnetonka, Minn. 55343
612-933-7235
VIDEO CENTER
Las Vegas, Nevada 89109
702-732-3201
VIDEO LIBRARY COMPANY
West Conshohocken, Penn. 19428
215-825-7080
VIDEO LIBRARY COMPANY
West Conshohocken, Penn. 19428
215-825-7080

VIDEO PRODUCTS DISTRIBUTORS
Sacramento Ca. 95815
916-971-9111
VIDEO STATION
West Los Angeles, Ca. 90025
213-826-7800/478-5000
VIDEO TREAS
24611 Crestview Court
Farmington Hills, Mich. 48018
313-474-0300
VHS RECORDS & VIDEO, INC.
Long Island, N.Y. 11101
212-786-7667
ZBS VIDEO
Lyndhurst, Ohio 44124
800-321-8774

TO PLACE YOUR ORDER DIRECT CALL TOLL FREE (800) 421-4495
THE NOSTALGIA MERCHANT • 6255 Sunset Boulevard, Suite 1019 • Hollywood, CA 90028

©1981 The Nostalgia Merchant Inc.

Circle #22 on reader service card

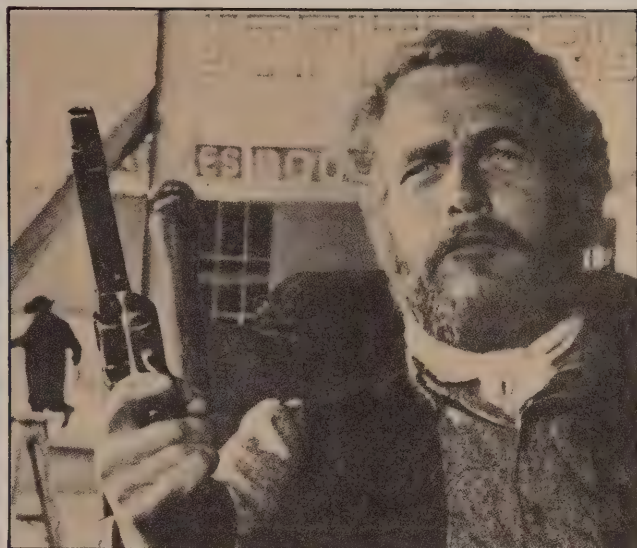




HOW THE WESTERNS WON

Hollywood Captures the Old Frontier

by Sue Avery



Paul Newman in *Judge Roy Bean*

The American West and the glorious, spectacular, helter-skelter, compressed legend of its discovery and settlement are uniquely our own. Nowhere else in the history of mankind has there been such a rapid rush of humanity into an area. In all, the founding of the West covered only about 60 years. But those 60 years brought an unprecedented onslaught of trappers, settlers, outlaws and fortune seekers—ordinary folk, most of them, who were somehow translated into giants in the great American myth which grew out of the settlement of the West.

The Western film not only seized on this myth . . . it helped create and perpetuate it. Our vision of the days of the pioneers can never again be a truly accurate one, because the basic facts of American history have acquired staggering embellishments and convolutions. But it is likely that we are no worse off for it.

Take, for example, Errol Flynn swashbuckling his way to destiny in *They Died With Their Boots On* (1941). His General Custer is one hundred percent red-blooded good guy, right fond of them redskins. But hold! Can this be the same man? In *Sitting Bull* (1954), he's a treacherous, stupid fellow, a betrayer of the Indians, whom he hates. Ronald Reagan gave us, in *Santa Fe Trail* (1940, a good film this, starring Errol Flynn and Olivia de Havilland), an unspectacular, simple soldier, "Jest doin' mah dooty, Ma'am."

And what of the Pony Express? What of the range wars, those disastrous battles for survival between basically decent men, cattlemen and sheep men? Significant molders of America's destiny, these events were largely ignored by the manipulators of Culver City and points West.

John Wayne in *El Dorado*

Gary Cooper in *The Westerner* (1940)



But no one can deny that Hollywood knew what it was doing. While from the start life on the frontier was hard and monotonous, it was at the same time heroic. Small wonder that it provided such rich fodder for the new film industry.

Moving pictures began hot on the heels of the closing of the frontier. *The Great Train Robbery*, the first feature film and, appropriately enough, the first cowboy film as well, was made in 1903, only five years after the last official battle between bluecoats and Indians. Ever since, filmmakers have made it their business to feed our voracious appetites for two-way nostalgia—our own much-idealized visions and the national memory of the West. They have bolstered our egos with rugged, bold, noble heroes and strong, silent, uncomplaining women, the power of whose love can reform villains; persuaded us again and again that justice does indeed triumph, if not at the hands of the law, then surely through such good, simple folk as thee and me; and proved to us repeatedly the value of individualism, of “fighting for the right.”

The Great Train Robbery symbolizes palmy days for would-be movie makers. Everyone worked hard and remuneration was not calculated to feed champagne tastes, but any warm body was welcome on the set and more than likely enlisted in the labor force. D.W.

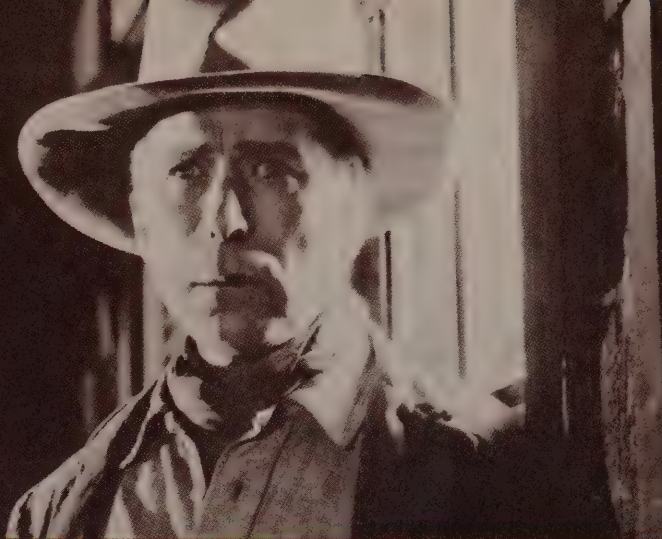
Griffith, his story idea turned down by Edison, was nevertheless invited to stay on there and be a hero, facing the cameras instead of writing for them.

G.M. Anderson happened to be around when Edwin S. Porter was shooting *The Great Train Robbery*. Demoted from the role of bandit (he couldn't ride a horse), he played an extra and got the bug.

After working for Vitagraph as an actor and production assistant, and in Chicago and for Colonel William Selig (many a one-reeler emanated from Chicago in those days), Anderson, with George Spoor, founded the Essanay Company, a pioneer film company destined for glory. They moved their operation to California in 1908 and forthwith launched that state and the movies on a path from which neither has looked back.

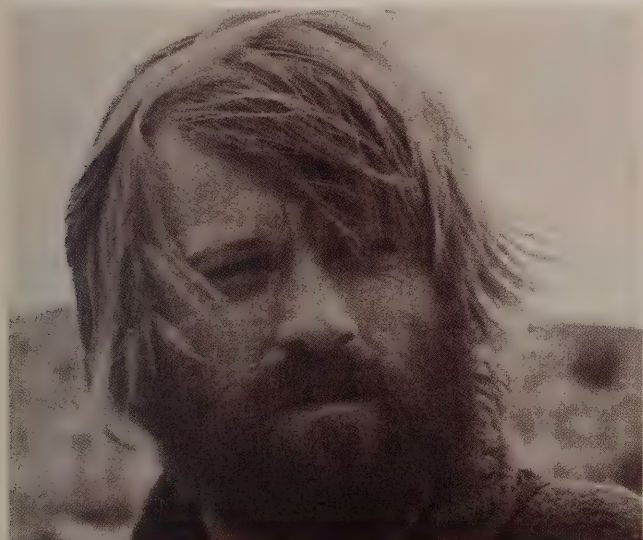
Having remedied one of his shortcomings (he learned to ride a horse), Anderson essayed the lead in his company's *Bronco Billy and the Baby*. Lo, the Western star was born! Bronco Billy was such a hit that Anderson retained the character and portrayed him in a series of one- and two-reelers, almost 500 in all. While his costumes were at first outlandish, they soon tamed down and Bronco Billy Anderson played his films against convincing backgrounds, in stories which did not stray too far from the unvarnished truth of pioneer life.

But moving pictures had jumped hands, feet, tooth, and nail, onto the Western film bandwagon. A proliferation of small companies churned out Westerns by the carload. While some were amateurish and carelessly filmed and edited (the United States Cavalry in *The Corporal's Daughter* galloping along paved roads!), some were taut and well plotted. Two men stand out as giants of those early days of careless plenty—D. W. Griffith and Thomas H. H. Ince.



William S. Hart in *Tumbleweeds* (1925)

Griffith, rare avis of the American movie, seized on the Western with his firm director's hand and eye and transformed it. With his cameraman, G. W. Bitzer, he pioneered film techniques still standard today: cross cutting from action to action, the contrast of close-up and long shot, the running insert (riding close-up), to mention



Robert Redford in *Jeremiah Johnson* (1972)

the most obvious. *The Battle of Elderbush Gulch* (1913), one of his most noteworthy efforts, introduced many of these techniques.

Not only did he set the moving picture industry squarely on its feet, he also provided a training ground for talent. The roster of movie greats, actors and directors, who first worked with or were influenced by Griffith, reads like a who's who of stardom.

Thomas H. Ince gave us an early spectacle, the two-reel *War on the Plains* (1911), hailed for its artistry and authenticity. His subsequent Westerns were melodramas of strong, even wild plot, much given to suffering and despair. Ince's big contribution was organization. The detailed film scripts taken for granted today did not exist until Ince proved their worth.

By the mid-teens the public began to weary of the glut and the Western fell on hard times. But what would horse operas be without a rescuer lurking in the wings? Along

came William S. Hart, an actor who loved the West and grieved its treatment in film. From the time he saw his first Western, he determined to right that wrong. In 1914, he joined his old friend Thomas H. Ince, in California. Ince was now associated with D. W. Griffith and Mack Sennett in the New York Motion Picture Company, filming two movies a day.

Hart's first two roles were as villains in two-reelers, not at all, in plot or authenticity, what he had envisioned. He persuaded Ince to let him try on his own. He wrote (with C. Gardner Sullivan) and starred in two five-reelers, *The Bargain* (1914) and *On the Night Stage* (1914, later re-named *The Bandit and the Preacher*).

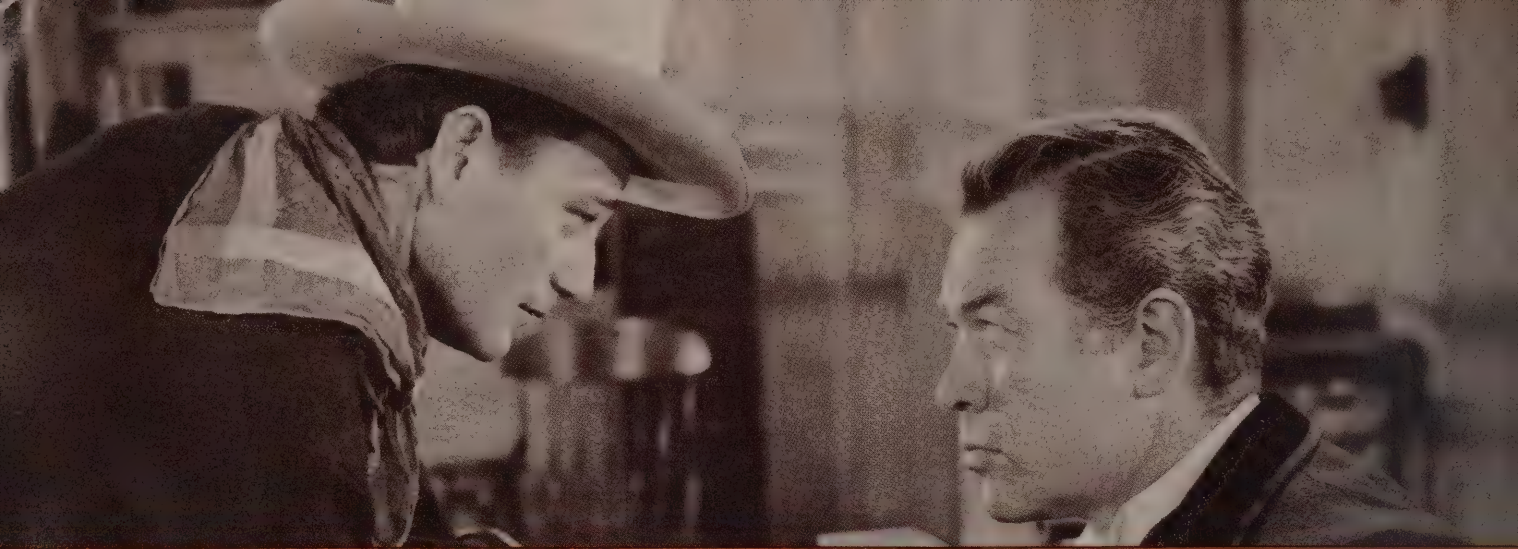
These two powerful Westerns, well written, skillfully filmed, gripping, action-filled dramas, became the vanguard of the Hart legend. For ten years he made shoot-em-ups still cited today for the power of their story lines, the almost poetic beauty of their evocation of an authentic old West. "The truth of the West meant more to me than a job and always will." Thus spoke Hart, a sentiment he movingly repeated in an eight-minute prologue to a re-issue in 1939 of his film *Tumbleweeds*.

Tumbleweeds, a genuine horse opera made in 1925 for United Artists at a (then) lavish \$312,000, was built around the opening of the Cherokee Strip to settlers. The mighty swell of its land rush sequence was superbly filmed and edited. This classic Western was Hart's last.

Hart's films, reflecting his deep love of the West, restored the Western to popularity, but he was not the only star of those halcyon days. Bronco Billy Anderson was still around and a glittering Tom Mix was riding hell bent over movie horizons.

Tom Mix, cowpuncher, rodeo performer, Wild West show star, fell into movies by the back door. Hired by Selig (in Chicago) as a consultant, he did a little doubling, then a little acting, and finally became writer, director and star of his own films, making almost 100 one- and two-reelers from 1911 to 1917.

Tom Mix endured for many years, offering his adoring public well-written, imaginatively filmed, slick, breezy, exciting fun, with little effort to convey realism. *Cupid's Round-Up* (1918), a Fox production, was a typical Mix entry. He made more than 60 features for Fox after 1920, providing the company with solid bread and butter and setting it firmly on its financial feet.



John Wayne and Ward Bond in *Tall in the Saddle* (1944)

Sparking the derring-do of the Twenties were Douglas Fairbanks (marvelous action films, full of fun); Hoot Gibson (streamlined, sleek films, replete with comic relief); Harry Carey (a performer of the Hart school, his many films for John Ford are among the best Westerns ever made); Ken Maynard (a showman, his



Gary Cooper in *The Plainsman* (1936)

movies often featured spectacular trick riding); Buck Jones (more sober in his approach, in good horse operas full of action and lively comedy); Fred Thomson (in his time almost as popular as Tom Mix); Bob Steele (very exciting fare); Tim McCoy (a little slow of pace but fine films, quite lavishly produced); and Rin Tin Tin (as Mix to Fox, so Rin Tin Tin to Warners—a savior.

John Ford got his start as a director in those years. His *The Iron Horse* (1924) and James Cruze's *The Covered Wagon* (1923) are among the landmark films of the Western genre, zingers par excellence.

Ford began with Universal in 1917, scoring immediately with the public and critics alike. *Straight Shootin'* starred Harry Carey with Hoot Gibson and displayed the distinctive brilliance of Ford's direction: clean cut, swift camera work, picturesque locations, lively action, strong story line. Almost at once he established himself as the ace of Western directors.

James Cruze's *The Covered Wagon* preceded Ford's *Iron Horse* by a year. Its significance lies largely in its impact on the Western. It revitalized it and was a strong influence well into the sound era. *The Covered Wagon* is an epic, a little weak in plot to be sure, but magnificently photographed, vividly evoking the majestic sweep of the prairie, the horror of an Indian attack, the thundering of buffalo herds.

When John Ford made *The Iron Horse* a year later, he had already directed "little" horse operas of excellent quality. *The Iron Horse* was his epic. A railroad-building yarn of enormous vitality and gusto, enriched by the superb camera work and tight, tension-building editing so typical of Ford, it has grown in influence over the years.

Most of our cowboy heroes made the transition from silence to sound quite gracefully, but the early years of sound saw a reduction in the number of horse operas produced. The movies were too entranced at first with "talking" to give much thought to action. (Some companies made silent and sound versions of the same film. *The Indians Are Coming*—1930—for instance, was simultaneously Universal's last silent serial and first talking serial.)

Tom Mix, Ken Maynard, Tim McCoy and Buck Jones continued to make movies through the new decade. On the whole, these were slow paced, overly elaborate oaters, but a few of Maynard's early sound movies rank among the best, notably *Branded Men*; *Dynamite Ranch*; *Fargo Express*; *Lawless Riders*; *Texas Gunfighters*; *Whistling Dan*; *Mystery Mountain* (originally a serial; Gene Autry and Smiley Burnette have bit parts in this); *In Old Santa Fe* (1935, with Gene Autry and Smiley Burnette in guest starring roles); *Daniel Boone* (1936) and *Boots of Destiny* (1937).

Harry Carey, bless him, continued to flourish for years. His silent Westerns were his best but some of his early sound films are interesting, *The Last Outlaw* with Hoot Gibson, for instance. Harry Carey serials of this period are still exciting fare, *Vanishing Legion* and *Devil Horse* (1932) notably, the latter especially suspenseful with stuntman Yakima Canutt outdoing himself.

Canutt, a thrilling rider and stuntman, was a fixture in many of the Westerns of the Twenties, a sort of second string hero. In the Thirties he embellished the action in many a fast-paced oater, usually cast as a villain.





The "Duke" and Ward Bond together again in *The Searchers* (1956)

In addition to his acting career, he worked as a double for many of the cowboy stars of the Thirties; in fact, he was John Wayne's permanent double. In *The Devil Horse*, doubling for Harry Carey, he fought a grim battle with the horse, literally hanging on with his feet as it twisted and reared and rolled on the ground. He supervised himself in *Stagecoach* (1939), doubling for Wayne and directing that unforgettable chase over the salt flats.

Canutt was a fine second unit director, supervising the swift action of sweeping Indian hordes, escapes from prairie fires, rattling trains of racing wagons. One of his biggest assets was his well-organized group of stuntmen, complete with trained horses and special equipment. Canutt did not confine himself to horse opera. As a



Rod Cameron in *Panhandle* (1948)

second unit director he was responsible for spectacular battle scenes and mass action involving everything from Greek soldiers and Medieval jousts to the swift-paced action shots in John Wayne's otherwise logy *Rio Lobo*.

The Thirties was the heyday of the Western, with close to 250 produced in those years. What better antidote to the rigors of the Great Depression than the simple black and white of good and evil and the legendary drama of an expansive era?

Almost every studio made its quota of "B" Westerns; a few studios (Republic and Monogram, for example) specialized in horse operas. An astonishing percentage were first-class films—adequately plotted, lively, with swift action well-photographed. Ranked among the classics: William Wyler's *Hell's Heroes* (1929) and Edward L. Cahn's *Law and Order* (1932), neither of which was an epic but of a little higher order than the "B's."

Two epics of the early sound era were, zingers both, *Billy the Kid* (King Vidor's version starring Johnny Mack Brown and Wallace Beery) and *The Big Trail*, directed by Raoul Walsh (John Wayne's first starring role), both filmed in wide screen (now the Todd AO process). There

are scenes in these movies so spectacular that they remain unmatched to this day. Another zinger of this time was Wesley Ruggles' *Cimarron* with Richard Dix and Irene Dunne, a classic epic.

But Western epics were not the meat of the Thirties. The solidly made, well directed, well photographed "little" Westerns reigned supreme. Those lavish Westerns were disappointing, slow-paced and pretentious—among them, *Sutter's Gold* (1936); *The Plainsman*; *Wells Fargo*; *The Texas Rangers*; and *The Streets of Laredo*.

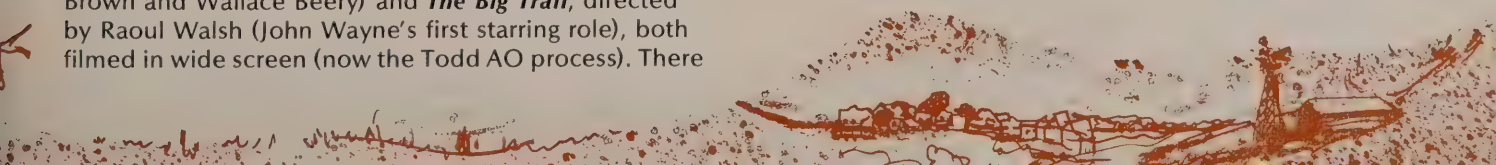
More pleasing, cleanly filmed, and full of action are such minor films as *The Vengeance of Rannah* (Rin Tin Tin, Jr.); *Down the Wyoming Trail* (musical, fine stunting, exciting reindeer stampede); *Trail of the Hawk* (offbeat and very interesting); *Undercover Man* (good melodrama); *Rawhide* (a Smith Bellow Western with Lou Gehrig appearing in a featured role); and *Knights of the Range* (1940, one of the best of the Zane Greys).

The splendid little "B's" spawned more than pleasure for the public. They introduced a spate of promising new stars riding their prancing steeds onto the screen.

George O'Brien, hitherto a straight leading man, blossomed into a Western star in a fine Zane Grey series. Rex Bell made a brief splash with some good, realistic Westerns. See his *Saddle Aces* and *Gunfire*. And Gary Cooper and John Wayne emerged to establish themselves firmly in the pantheon of the greats.

John Wayne started with Tom Mix as a prop boy. John Ford, in effect, discovered him and gave him a small part in *Men Without Women* (late Twenties). He achieved stardom in Raoul Walsh's *The Big Trail* (1931), a sweeping epic, and throughout the Thirties, for Warners, for Monogram, for Republic, he rode his way through the "B's" into our hearts. The early films are good, fast-paced, simple horse opera fare. Just the stuff to give the troops.

Among the Duke's shoot-em-ups of the Thirties are *West of the Divide* (1933); *The Star Packer* (early Thirties); *Man from Utah* (1934); *Desert Trail* (1935); *Hell Town* (1938, a Zane Grey story also starring Johnny Mack Brown); *Randy Rides Alone* (1934); *The Trail Beyond* (1934, good stunting—a stunt misfire in this was kept in,





Gary Cooper in *High Noon* (1952)

enhancing the action); and *Winds in the Wastelands* (Thirties), heavily drawn upon in later years for stock footage. Indeed, so well directed and cleanly photographed were all these films that they have provided stock footage for many an oater since.

Any horse opera buff knows it was John Ford's *Stagecoach* (1939) which delivered Wayne out of "B" territory. He continued to make "B's," but was increasingly cast in major films, becoming in time everyone's beloved *Duke*, a fixture of American life. Some others of his films, available on videocassette, are *Tall in the Saddle* (1944, featuring Ward Bond); *The Alamo*; *Angel and the Badman* (1947, the old theme of the badman redeemed by a good woman); and *Dakota* (1945—a

silents, getting his first break (if publicity can be believed) simply because he could ride a horse. He appeared in *Nevada* (1927, last big year of the silents), an historical Zane Grey Western, then progressed to sound and Victor Fleming's *The Virginian* (1929), in which also appeared Walter Huston, Richard Arlen and Mary Brian. Of all the versions of this Owen Wister classic, this is still the best, though its preoccupation with talking slowed the action a little.

Cooper continued as a Western star, but most of his films were major ones and he appeared in other roles as well. The expensively produced Westerns of Cooper's Thirties era were not a patch on the less pretentious oaters which regaled our Saturday afternoons. *Fighting Caravans* (early Thirties) was a pale imitation of *The Covered Wagon*. Cecil B. de Mille's large scale *The Plainsman* (mid-Thirties) was pretentious and historically ridiculous. Outdoing even this was *Northwest Mounted Police* which Cooper made for de Mille in the early Forties with a star-studded cast including Madeleine Carroll, Robert Preston, Paulette Goddard and Preston Foster.

One of Cooper's major Westerns, *The Westerner* (1940), directed by William Wyler, and featuring the durable Walter Brennan as Judge Roy Bean, was offbeat and somewhat stark, not too successful with the public but an outstanding film. Other major Cooper Westerns include *The Cowboy and the Lady* (1938, with Merle Oberon, Patsy Kelly and Walter Brennan) and *The Garden of Evil* (1954, with Susan Hayward and Richard Widmark), the latter exploiting the post-war preoccupation with "sex in the Western."

Cooper's celebrated *High Noon* came along in the post war era when Hollywood abandoned its fine little "B's" and went in for "truth in Westerns." While it is not authentic in content and its final street fight has often been surpassed in suspense and action, *High Noon* will probably always maintain its popular niche as a classic.

The solidly made minor Westerns of the Thirties proved to be a springboard for other rising stars as well; among them John Garfield, Rita Hayworth, Ann Rutherford, Jennifer Jones, George Montgomery and Mary Astor. And 1930 saw a fascinating new villain in *The Painted Desert*, an interesting minor "A" film in which Clark Gable confronted hero William Boyd.



She Wore a Yellow Ribbon (1949)

splendid sequence of an escape from a prairie fire, staged by Yakima Canutt). Also, *Flame of the Barbary Coast* (1945); *Red River* (1947, Montgomery Clift in this, a fine, realistic Howard Hawks Western); *She Wore a Yellow Ribbon* (1949); *The Fighting Kentuckian* (1949); *Fort Apache* (1948, directed by John Ford, one of Wayne's best films, harking back to the spirit of the old Westerns, featuring Henry Fonda as a martinet General Custer); *El Dorado* (1967, with Robert Mitchum, James Caan, Arthur Hunnicutt); *Rio Grande* (1950, excellent, a "sympathetic-to-the-Indians" Western, also starring Maureen O'Hara); *True Grit* (1969, one of the new breed of Westerns, poking fun at the legends); and *The Undefeated* (1969).

Where John Wayne loped through the Thirties in standard "B" Westerns, Gary Cooper very soon graduated from horse to haut monde. He began his career in the



Tim McCoy in *The Indians Are Coming* (1930)

William Boyd, Gene Autry and Roy Rogers began their rides to glory in the Thirties. William Boyd was a veteran of Cecil B. de Mille silents, no longer young when he made the first of his famous series, *Hopalong Cassidy*. In all he made close to 70 "Hoppies" and they turned out to be amongst the most successful



William Boyd in *Bar 20 Rides Again* (1935)

Westerns ever made. No attempt was made to conceal Boyd's age, most of the action being handled by his sidekick. Early TV buffs remember the Hopalong Cassidy series as a program mainstay. (Available on video cassette are *Bar 20 Justice*, *Bar 20 Justice Rides Again*, *Cassidy of Bar 20*, *Heart of the West* (especially good), *Hopalong Cassidy at Bar 20*, *Hopalong Rides Again*, *Sunset Trail* and *Three on a Trail*.)

Boyd helped lead us to the musical Western by pioneering the use of background music, enhancing the excitement of his final scenes with a spirited accompaniment. Ken Maynard introduced singing in his early talking Westerns, twice featuring a young singer named Gene Autry and the comic Smiley Burnette. We all know what happened next. Gene Autry sang and galloped his way to the head of the class. Autry's horse operas can hardly be said to represent any American West of actual

fact, but they were wildly successful and zingers all.

For a sample of the Autry style, try *The Big Show* (Thirties, good Yakima Canutt stunting); *Boots and Saddle* (1937, lots of comedy, a lively chase but otherwise fairly slow); *Loaded Pistols* (Forties, pretty good); *Man from Music Mountain* (1944); *The Old Corral* (Thirties, introduced another singing cowboy, Roy Rogers); *Round Up Time in Texas*; *Phantom Empire* (a serial, foolish but popular; and *Yodelin' Kid from Pine Ridge* (an enjoyable film which took Autry to Florida and the turpentine forests). Autry made Westerns right through the Forties, but with the passing of the "B's," he, too, faded from films.

Hot on Autry's heels came Roy Rogers. At first just a bit player, in *Under Western Star* he was launched as a star. Rogers' early movies were a little slow on action, but at least they eschewed the hoopla of some of Autry's entries. Among Rogers' films available on videotape are *Bells of Coronado* (1950, a super-modern Western); *Billy the Kid Returns*; *Song of Nevada*; *Utah*; *Trigger Jr.*; and *My Pal Trigger*.

Buck Jones, Ken Maynard, Gene Autry, Roy Rogers, John Wayne—they filled our Saturdays (and sometimes a stolen school night) with drama and the thrill of the hero's final exciting triumph. But through the long week, from one Saturday to the next, we still lived in a state of pleasurable suspense induced by the last episode of the serial: Would the Lone Ranger escape from the villain's strong bonds? Would the cavalry miraculously appear over the crest of the hill and scatter the Indian hordes? Would our hero drop safely from the mighty cliff to rescue the heroine trapped under the falls?

The serial was a fixture. Though we followed breathlessly through episode after episode, the serials of the Thirties were, in retrospect, a pretty sorry lot, carelessly plotted and filmed. (The silent serials, depending entirely on action, stand up well today, still thrilling in suspenseful escapes.) Exceptions are the Lone Ranger series and a few of the Buck Jones and Johnny Mack Brown efforts.

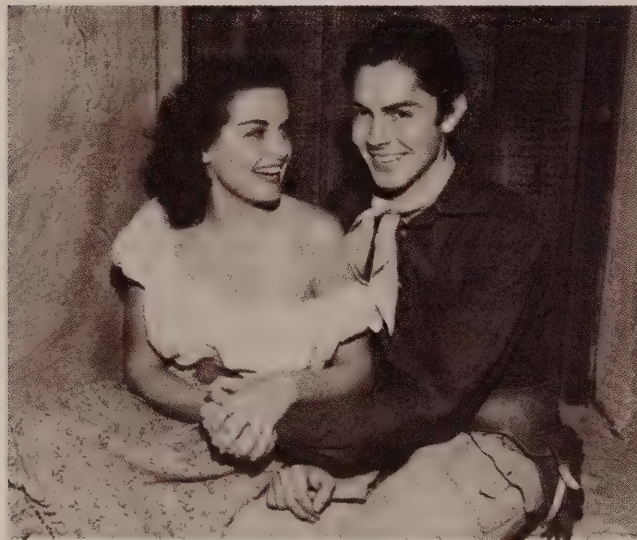
The Lone Ranger (1938), successful as a serial, virtually spawned an industry. From his debut on film, the mysterious masked man and his faithful Indian companion progressed to radio and television, and deep into our consciousness. Still great fun are such thrillers as



Tim McCoy in *Forbidden Trails* (1941)

The Lone Ranger, *The Legend of the Lone Ranger*, *The Search*, *One Mask Too Many* and *The Lone Ranger and the Lost City of Gold*.

Still flourishing, the lively little "B" Westerns loped into the Forties and through the war. The Rough Riders and the Three Mesquiteers cavorted in a series of well plotted,



Jane Russell in *The Outlaw* (1943)

excitingly filmed horse operas. The *Cisco Kid* series, at first starring Gilbert Roland, were strong films, unique for their depth of characterization.

Buck Jones, Tim McCoy and Raymond Hatton were the Rough Riders. Their trademark was the Rough Riders' song—the series was distinguished for its stirring background music. *Arizona Bound*, *The Gunman from Bodie* and *Forbidden Trails*, the first three made, are especially good.

Where the Rough Riders were consistent in story and era, the Three Mesquiteers wandered all over the lot. The leading roles were played by a variety of performers, including John Wayne, and the action took our heroes from covered wagon days to World War II. The Three Mesquiteers enjoyed one consistency, though: each film in the series was fast-paced and well produced. *Heart of the Rockies* is one of the best; also good are *Overland Stage Raiders* and *Gangs of Sonora*. An anemic imitation, the

Range Buster series, offered *Cowboy Commandoes* and *Texas to Bataan*, not quite up to snuff, but not bad.

While Gene Autry and Roy Rogers were filling the wide open spaces with lavish musical arrays, director Harry Sherman provided *Knight of the Range* (1940, a Zane Grey, one of the best) and *The Kansan*, fine Westerns in the old style. Sherman loved the West as William S. Hart did and turned out, in his career, many honest oaters. An especially fine traditional film of the immediate post war years is *Panhandle* (1947).

In more elaborate films, our beloved horse opera favorites (John Wayne, Gary Cooper, Joel McCrea, George Montgomery) continued to ride the range. Glittering studio stars lent their prestige to the humble Western—Dick Powell in *Station West* (1948) and Susan Hayward and Robert Preston in *Tulsa*, for instance.

Randolph Scott, who began his cowboy career early in the Thirties, proved to be a durable horse opera fixture. His *Abilene Town* (1946) and *Trail Street* (1947), minor "A's", are straightforward shoot-em-ups. In his *Western Union* (1941), *Belle Starr* (1941) and *Return of the Bad Men* (1948, one of the decade's best) the villain as hero (or heroine) begins to rear a determined head. (Scott continued to make oaters long after the "B's" vanished from the scene, churning out minor "A's" right through the Fifties.)

The first thin trickle of disenchantment was now beginning to wend its way, growing in these post war years to a spate. Whitewash of, and eventually worship of, the outlaw, exploitation of sex, the neurotic hero, the base motive, unabashed brutality—all began to affect the Western.

Howard Hughes' famous *The Outlaw* (1943) was but the precursor of a general trend away from morality. In light of some of the films which followed it, *The Outlaw's* battles with the censor seem ridiculous. In truth, the exploitation of sex in this film does it a disservice; it's a good enough movie to stand without it. We all know that the well-endowed Jane Russell adorned *The Outlaw*, but Walter Huston and Thomas Mitchell lent it their special endowments as well.

With the shadow of television fast lengthening, Westerns moved into the Fifties. Roy Rogers' Gene Autry, Johnny Mack Brown and Tim Holt made a few "B's." George Montgomery's entries for this decade include



William Farnum in *Riders of the Purple Sage* (1918)

Man from God's Country (1958) and *King of the Wild Stallions* (1959). George Montgomery, with a solid grounding in serials, made his feature debut in *Riders of the Purple Sage* (1918), best of the four versions of this Zane Grey novel. He made a number of solid, standard oaters. And Randolph Scott continued indefatigable.



John Wayne in *Fort Apache* (1948)

By the mid-1950s, however, the day of the "B" film had virtually come to an end, a victim partly of high costs. Increasingly, stock footage had been replacing fresh camera work and casts were growing smaller. Westerns became, perforce, major productions. Joel McCrea (often with Barbara Stanwyck) wore his noble visage through such feature films as *The First Texan* (1956) and *The Oklahoman* (1957). *The Last Command* (1955) is an honest, major Western of the Alamo period. Joan Crawford, however, drenched us with emotion in the ridiculous *Johnny Guitar* (1954), another entry bordering on the erotic.

Celebration of the gunfighting hero and gratuitous sex, violence and sadism more and more filled the screen. *Gunfight at the OK Corral* (1956) starred Kirk Douglas and Burt Lancaster in a super Western in which killing is excused in the name of law and order.

Rancho Notorious (1952), a fine film, exploits unnecessarily the bloody violence of its fight scene. *Shotgun* (1953) is another fast-paced little Western, notable both for its presentation of Indians as human beings and also for the realism with which it depicts their cruelty. (*Broken Arrow*, 1950, starring Jimmy Stewart and Jeff Chandler, pioneered the movement toward recognition that the Indians are human beings after all. This is a fine, trail-breaking film.) Some interesting nudity is presented in *Shotgun*; Yvonne de Carlo takes a bath (baths became quite the thing), and yet another bloody fight results.

Last Train from Gun Hill (1959) pits the stalwart Kirk Douglas against Anthony Quinn in an oater boasting of its "drama" and "action." *Little Big Horn* (1950s) plucked the heart strings of neurosis, hardly the fare Western aficionados expect. *Run of the Arrow* (1957), like *Shotgun* (1953), is a slick, honest shoot-em-up, again presenting the Indians as flesh and blood folk. But the "flesh and blood" become all too real. This otherwise fine film is marred by gratuitous brutality.

From Gregory Peck and Jennifer Jones breathing heavily through *Duel in the Sun* (1945) to Clark Gable dimpling and nude-bathing in the lifeless *The King and Four Queens* to the supreme violence of Sam Peckinpah's *The Wild Bunch* (1969), Westerns fed a seemingly bottomless public appetite for eroticism and sensationalism.

But the truly good Westerns of this early post war period are those that hark back to the beloved stern traditions of the genre. John Ford, *Stagecoach*-launched, directed a series of splendid Westerns, not sensational or titillating, but thoroughly satisfying in their evocation of an era and its values: *Fort Apache* (1948); *She Wore a Yellow Ribbon* (1949); *Rio Grande*; *The Searchers* (1956, notable for its playfulness); *The Wings of Eagles* (1957); *The Horse Soldiers* (1959, an especially action-packed film); *Two Rode Together* (1960s; in this oater Ford allowed exploration of motives and soul searching, unfortunately slowing the action) and *The Man Who Shot Liberty Valance* (1962, a somber film, but still good in the Ford tradition).

Cheyenne Autumn (1964), is a lyrical Western—one of

(Continued on page 88)

Westerns On Cassette

Watch John Wayne, Roy Rogers, Gene Autry, the Cisco Kid, Hopalong Cassidy and other Western favorites swagger their way through the following movies and serials available on videocassette.

ABILENE TOWN

Randolph Scott, Lloyd Bridges.
Post-Civil War conflict between the homesteaders and cattlemen of Kansas.

B&W; 1946; 90 min.

THE ADVENTURES OF GALLANT BESS

Cameron Mitchell.
Mitchell is the good guy in this rodeo tale of a cowpoke who trains a champion horse.

Color; 1948; 73 min.

ADVENTURES OF REX AND RINTY

Kane Richmond, Harry Richmond, Rin Tin Tin, Jr.

Rin Tin Tin, the furry western hero, comes to the rescue in this early serial.

B&W; 1935; 156 min.

AGAINST A CROOKED SKY

Richard Boone, Stewart Peterson.
A young boy grows to manhood through his search for his sister who has been kidnapped by Indians. Richard Boone has an excellent character role as the trapper who aids him.

Color; 1975; 100 min.

ALONG THE SUNDOWN TRAIL

Bill "Stage" Boyd.
G-men in chaps set out to round up spies in the west.

B&W; 1942; 59 min.

ALVAREZ KELLY

William Holden, Richard Widmark.
A Civil War scenario with Holden as a rancher and Widmark as a rustler.

Color; 1966; 116 min.

APACHE

Burt Lancaster, John McIntyre, Jean Peters.

Lancaster is a pacifistic Indian who



Jack Lambert and Randolph Scott in *Abilene Town*

learns violence from the U.S. cavalry.

Color; 1954; 91 min.

ARIZONA RAIDERS

Audie Murphy, Buster Crabbe.
The war hero and former space man hit the trail in this post-Civil war drama about Quantrill's Raiders in Arizona.

Color; 1963; 88 min.

ARIZONA WHIRLWIND

Hoot Gibson, Ken Maynard, Bob Steele.

The Trail Blazers, a trio of adventurous cowboys, find themselves knee-deep in danger.

B&W; 1944; 59 min.

BADMEN OF NEVADA

Kent Taylor, Gail Patrick.
A tale of Nevada when the only law west of the Pecos was a gun.

B&W; 1933; 57 min.

BARON OF ARIZONA

Vincent Price, Ellen Drew, Beulah Bondi.

THE BANDITS

Robert Conrad, Jan-Michael Vincent.

Tense western adventure with two Americans helping bandits to find their loot.

Color; 1978; 89 min.

A land clerk tries to convince the government he owns Arizona.
B&W; 1951; 99 min.

THE BATTLE OF ELDERBUSH GULCH

Lillian Gish.
Silent movie star Gish stars in a western.

B&W; 1913; 22 min.

BATTLING MARSHAL

Sunset Carson.

A fast-moving action yarn with one of the western matinee idols.

B&W; 1948; 52 min.

BELLE STAR'S DAUGHTER

Rod Cameron, George Montgomery, Ruth Roman.

A fair entry with Roman as the daughter of the lady outlaw who comes seeking the marshal for revenge.

B&W; 1948; 85 min.

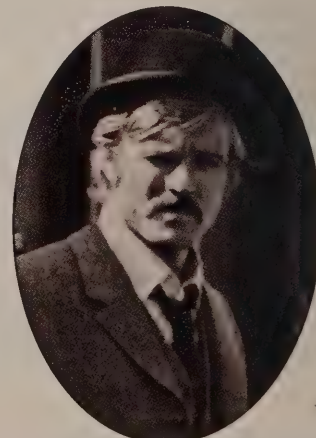
BEST OF THE BADMEN

Robert Ryan, Claire Trevor, Robert Preston, Walter Brennan.

An ex-Union officer decides that surrender is the only way he can clear his name.

Color; 1951; 84 min.

Paul Newman, Katharine Ross and Robert Redford in *Butch Cassidy and the Sundance Kid*



BITE THE BULLET

Candice Bergen, James Coburn, Gene Hackman.
An excellent western about the waning days of western glory. The story revolves around a 700-mile horse race at the turn of the century.
Color; 1975; 131 min.

BLACK GOLD

Anthony Quinn, Katherine De Mille. A Mexican rancher names a colt for the crude.
B&W; 1947; 92 min.

BLAZING SADDLES

Cleavon Little, Gene Wilder, Madeline Kahn.
Mel Brooks' wacky take-off of westerns, complete with a black sheriff and Kahn doing the best bump-and-grind Dietrich imitation yet.
Color; 1974; 90 min.

BLOOD ON THE MOON

Robert Mitchum, Robert Preston, Walter Brennan.
Good acting carries this story of an underhanded cowboy who mends his ways for the sake of a lady.
B&W; 1948; 88 min.

Harry Carey and Frankie Darro in Devil Horse



BORDER ROMANCE

Don Terry, Marjorie Kane. Three Americans have their horses stolen in Mexico. One of the earliest.
B&W; 1930; 58 min.

BRAND OF THE DEVIL

Dave O'Brien, Kermit Maynard. Texas Rangers fight off a gang of ruthless rustlers.
B&W; 1944; 62 min.

BROADWAY TO CHEYENNE

Rex Bell, Gabby Hayes. West goes East when two cowboys head for the Great White Way.
B&W; 1932; 62 min.

BUCK AND THE PREACHER

Sidney Poitier, Harry Belafonte, Ruby Dee.
A poignant western drama about ex-slaves, cavalry officers, and racism.
Color; 1972; 102 min.

BUFFALO STAMPEDE

Randolph Scott, Buster Crabbe, Noah Beery.
A variation on the Buffalo Bill saga with a buffalo round-up.
B&W; 1933; 60 min.

BUTCH CASSIDY AND THE SUNDANCE KID

Paul Newman, Robert Redford, Katherine Ross.
The modern cult western with the dashing duo playing notorious



Jane Fonda and Lee Marvin in Cat Ballou

CAT BALLOU

Jane Fonda, Lee Marvin, Nat King Cole.
An Academy Award winning comedic western about a school teacher, a cattle rustler and larceny.
Color; 1966; 96 min.

CATTLE QUEEN OF MONTANA

Ronald Reagan, Barbara Stanwyck. A man is killed for his property, but his daughter decides to fight on.
Color; 1954; 88 min.

CIRCLE OF DEATH

Monte Montana, Yakima Canutt. The twist in this early western is the red man wears a white hat.
B&W; 1936; 55 min.

COLE YOUNGER, GUNFIGHTER

Frank Lovejoy, Abby Dalton, James Best.
A lone Texas gunman takes on a crooked law department.
Color; 1958; 78 min.

CRY BLOOD, APACHE

Joel McCrea, Jody McCrea, Don Kemp.
An Apache family is murdered by prospectors, and the remaining family member seeks revenge.
Color; 1972; 75 min.

DANIEL BOONE

George O'Brien, Heather Angel, John Carradine.

An early adventure story about the pioneer who began the move westward.
B&W; 1936; 80 min.

DAVEY CROCKETT, KING OF THE WILD FRONTIER

Fess Parker, Buddy Ebsen. The Walt Disney classic about the legendary hero who rose from woodsman to senator and who fought gallantly at the Alamo.
Color; 1955; 93 min.

DEPUTY MARSHALL

Jon Hall, Frances Langford. The lawman is after two gunmen and a secret railroad map.
B&W; 1950; 75 min.

DESERT GOLD

Buster Crabbe, Tom Keene, Marsha Hunt.
Originally titled *Desert Story*, this is the tale of greed and heartbreak on the plains.
B&W; 1936; 55 min.

DESERT GUNS

Conway Tearle. A vintage western matinee from the early 1930s.
B&W; 1934; 60 min.

DEVIL HORSE

Harry Carey, Frankie Darro, Edwin Booth.
A 12-chapter serial about a boy and his horse.
B&W; 1932; 156 min.

DRUM BEAT

Alan Ladd, Charles Bronson.
Ladd is the Indian fighter who puts down his gun in favor of peace.
Color; 1954; 111 min.

THE DUDE RANGER

Smiley Burnette, George O'Brien.
A Zane Grey tale about an eastern tenderfoot who is thrust into a range war when he inherits land.
B&W; 1934; 58 min.

FIGHTING CARAVANS

Gary Cooper.
Zane Grey supplied the story and Cooper supplies the action.
B&W; 1932; 80 min.

THE FIGHTING TROOPER

Kermit Maynard.
A James Oliver Curwood story of justice and the Northwest Mounties.
B&W; 1934; 57 min.



Burt Lancaster in *Gunfight At The O.K. Corral*

FORBIDDEN TRAIL

Buck Jones.
The usual campy adventure in the old west.
B&W; 1933; 60 min.

FRONTIER SCOUT

George Houston, Mantan Moreland.
Western action of the Saturday matinee variety.
B&W; 1938; 60 min.

GODDESS OF SAGEBRUSH GULCH

An early western by the master director, D.W. Griffith—silent, of course.
B&W; 1912; 10 min.



Paul Newman in *Hombre*

GREAT DAY IN THE MORNING

Robert Stack, Virginia Mayo.
The focus of this one is the Colorado gold rush and the outbreak of the Civil War.
Color; 1956; 92 min.

THE GREAT JESSE JAMES RAID

William Parker, Barbara Payton.
Jesse James robs the gold mines of Colorado.
Color; 1949; 73 min.

GUNFIGHT AT THE O.K. CORRAL

Burt Lancaster, Kirk Douglas, Rhonda Fleming.
Passable adaptation of the tale about Doc Holliday and Wyatt Earp joining forces against the Clantons.
Color; 1957; 122 min.

GUNNERS AND GUNS

Black King, Edmond Cobb.
Oldie but goodie with matinee cowboy Black King.
B&W; 1934; 51 min.

GUNSMOKE IN TUCSON

Mark Stevens, Forrest Tucker, George Montgomery.
Brothers turn against each other when they take opposite sides of the law.
Color; 1958; 79 min.

HAVE A GOOD FUNERAL, MY FRIEND

John Garko, Antonio Vilar.
A mysterious stranger rides into a mining town and not even the local gunmen can stop him.
Color; 1972; 90 min.

THE HEART OF TEXAS RYAN

Tom Mix.
The famous silent six-shootin' star tangles with kidnappers.
B&W; 1916; 50 min.

HEROES OF THE WEST

Noah Beery.
One of the earliest of Hollywood's shoot-'em-ups.
B&W; 1932.

HIDDEN GOLD

Tom Mix.
Tom Mix, the U.S. Marshal turned actor, in a western adventure.
B&W; 1933; 57 min.

Western Characters Who Kept Fighting Back . . .

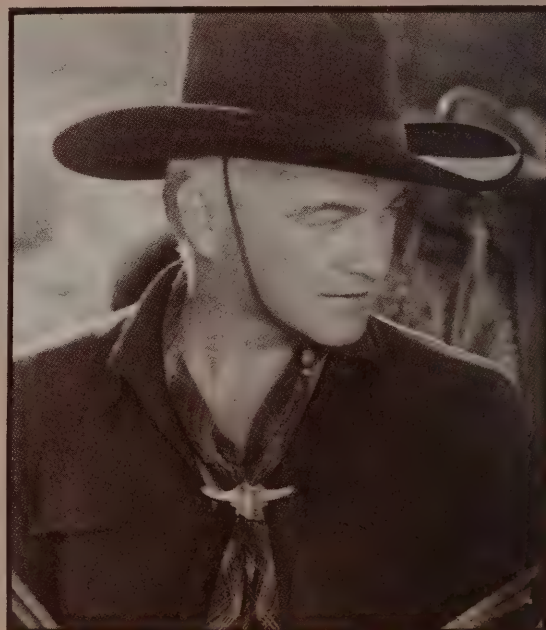
Billy The Kid

With Buster Crabbe: *The Drifter*; *Fuzzy Settles Down*; *Oath of Vengeance*; *Panhandle Trail*; *Prairie Badmen*; and *Shadows of Death*.

The Cisco Kid

With Duncan Renaldo: *Cisco Kid*; *The Daring Adventurer*; *The Daring Rogue*; *The Devil's Den*; *Don Amigo*; *Guns of Fury*; *In Old New Mexico*; and *South of the Rio Grande*.

With Gilbert Roland: *Beauty and the Bandit*; *The Gay Cavalier*; *King of the Bandits*; *Riding the California Trail*; *South of Monterey*; and *Robin Hood of Monterey*.



William Boyd as Hopalong Cassidy

HIGH NOON

Gary Cooper, Grace Kelly.
The Academy Award winning western about a newlywed marshal and the townspeople who won't help him when trouble comes to town. The best!
B&W; 1952; 85 min.

HOMBRE

Paul Newman, Frederich March, Richard Boone.
A white man is raised by Apaches and then finds he must adapt to a white man's world.
Color; 1967; 111 min.

I SHOT JESSE JAMES

John Ireland, Barbara Britton, Preston Foster.
Luck seems to have deserted Bob Ford, now that he has shot Jesse James.
B&W; 1949; 83 min.

JOHNNY GUITAR

Joan Crawford, Ernest Borgnine, Sterling Hayden.
Crawford is the tough saloon owner who can find wealth but not love.
Color; 1954; 110 min.

JUNIOR BONNER

Steve McQueen, Robert Preston, Ida Lupino.
The hard life and fast competition of the modern rodeo circuit, as seen through the lens of Sam Peckinpah.
Color; 1972; 100 min.



Kirk Douglas in Last Train From Gun Hill

JUSTICE RIDES AGAIN

Tom Mix.
Mix mixes it up with some very tough hombres in this one.
B&W; 1930s; 55 min.

KING OF THE TEXAS RANGERS

Sammy Baugh, Neil Hamilton.
A serial of western adventure, with Tom King trying to stop oily saboteurs.
B&W; 1941; 318 min.

THE LAST COMMAND

Sterling Hayden, Richard Carlson, Ernest Borgnine.
Another presentation of the last stand at the Alamo.
Color; 1955; 110 min.

THE LAST FRONTIER

Lon Chaney, Jr., Yakima Canutt.
A western serial of epic proportions featuring Wild Bill Hickock, General Custer, buffalo, wagon trains—the works.
B&W; 1932; 216 min.

LAST OF THE MOHICANS

Edwina Booth, Harry Carey.
A serialized adaptation of James Fenimore Cooper's saga of an Indian's life and death during the French and Indian Wars.
B&W; 1932; 156 min.

LAST TRAIN FROM GUN HILL

Kirk Douglas, Anthony Quinn, Carolyn Jones.
Douglas is the marshal who finds that the man who murdered his Indian wife is the son of the local boss.
Color; 1959; 94 min.

LAW OF THE SADDLE

Bob Livingston.
The Lone Rider decides to go after a band of outlaws.
B&W; 1945; 60 min.

LIGHTNING WARRIOR

George Brent, Frankie Barro, Rin Tin Tin, Jr.
A serial in twelve chapters featuring the western wonder dog, Rin Tin Tin.
B&W; 1931; 156 min.

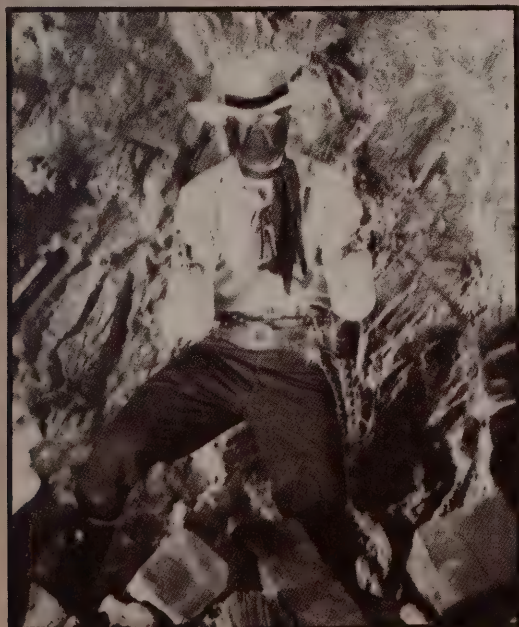
LITTLE BIG HORN

Marie Windsor, John Ireland, Lloyd Bridges.
The cavalry doesn't ride over the hill in time for this one.
B&W; 1951; 88 min.

LOUISIANA GAL

Rita Hayworth, Tom Keene.
The conflict over the Louisiana

Western Characters Who Kept Fighting Back . . .



The Lone Ranger

Hopalong Cassidy

With William Boyd: *Bar 20 Justice; Bar 20 Rides Again; Cassidy of Bar 20; False Colors; Forty Thieves; The Frontiersman; Heart of the West; Hills of Wyoming; Hopalong Cassidy at Bar 20; Hopalong Rides Again; In Old Mexico; The Leather Burners; Pride of the West; Renegade Trail; Rustlers' Valley; Three on the Trail; Undercover Man; and Wide Open Town.*

The Lone Ranger

With Clayton Moore and Jay Silverheels: *Champions of Justice; Legend of the Lone Ranger; The Lone Ranger; The Lone Ranger and the Lost City of Gold; One Mask Too Many; The Origin of the Lone Ranger; and The Search.*

Purchase provides the backdrop for adventure.
B&W; 1937; 71 min.

THE LUSTY MEN

Robert Mitchum, Susan Hayward, Arthur Kennedy.
The lives of two rodeo stars are intertwined as one rises to fame and the other strives to keep his name.
Color; 1952; 113 min.

MACKENNA'S GOLD

Gregory Peck, Omar Sharif, Telly Savalas.
An unlikely lot decides to go after a legendary gold cache, despite the threat of Apaches.
Color; 1969; 128 min.

MAJOR DUNDEE

Charlton Heston, Richard Harris, Jim Hutton.
Heston is the tough cavalry major who leads his unwilling troops against Apache raiders.
Color; 1965; 134 min.

A MAN ALONE

Ray Milland, Mary Murphy, Ward Bond.
Milland is on the run from the law for a crime he did not commit.
Color; 1955; 96 min.

A MAN CALLED SLEDGE

James Garner, Dennis Weaver.
Garner is the gunslinger who rounds up a group of outlaws to go after a gold cache—inside a federal prison!
Color; 1971; 90 min.

MAN FROM GOD'S COUNTRY

George Montgomery, Randy Stuart.
A cattleman becomes involved with building a railroad through Montana.
Color; 1958; 72 min.

THE MAN FROM LARAMIE

James Stewart, Wallace Ford, Arthur Kennedy.
Stewart is the cowpoke from Laramie, seeking revenge for the death of his brother.
Color; 1955; 104 min.

MIRACLE RIDER

Tom Mix, Joan Gale.
The legendary Tom Mix in a 15-chapter serialized story of western action.
B&W; 1935; 195 min.

MYSTERY MOUNTAIN

Ken Maynard, Gene Autry, Smiley Burnette.



Gloria Talbott and Joel McCrea in *The Oklahoman*

A serial in twelve episodes about the Rattler's efforts to stop railroad construction over Mystery Mountain.
B&W; 1934; 156 min.

OKLAHOMA CRUDE

George C. Scott, Faye Dunaway, John Mills.
A lone woman is drilling for oil in 1910, and being threatened by big business.
Color; 1973; 112 min.

THE OKLAHOMAN

Joel McCrea, Barbara Hale.
An Oklahoma doctor protects an Indian from land swindlers.
Color; 1956; 73 min.

THE OUTLAW

Jane Russell, Jack Beutel, Walter Huston.
This variation on the story about Billy the Kid sent Russell to stardom.
B&W; 1943; 95 min.

Favorite Western Stars . . . Favorite Western Stars . . .

Gene Autry

Back in the Saddle; Big Show; Boots and Saddles; Call of the Canyon; Git Along Little Doggies; Loaded Pistols; The Man from Music Mountain; Man of the Frontier; Melody Ranch; Melody Trail; Oh Susannah; The Old Barn Dance; The Old Corral; Phantom Empire; Prairie Moon; Public Cowboy No. 1; Ride, Ranger, Ride; Ridin' on a Rainbow; Rim of the Canyon; Radio Ranch; South of Texas/My Pal Trigger; Sioux City Sue; Round-up Time in Texas; Rootin' Tootin' Rhythm; Robinhood of Texas; Springtime in the Rockies; Twilight on the Rio Grande; and Yodelin' Kid from Pine Ridge.

Hoot Gibson

The Dude Bandit; Feud of the West; The Fighting Parson; Frontier Justice; Hard Hombre; The Last Outlaw; The Law Rides



Again; Local Bad Man; Lucky Terror/A Man's Land; The Painted Stallion; Rainbow's End; The Riding Avenger; Spirit of the West; Straight Shootin'; Sunset Range; Swiftly; And Wild Horse.

Ken Maynard

Arizona Terror; Between Fighting Men; Boots of Destiny; Branded Men; Come On, Tarzan; Death Rides the Range; Drum Taps; Dynamite Ranch; Fargo Express; Fightin' Thru; Flaming Lead; Harmony Trail; Hell Fire Austin; In Old Santa Fe; Lawless Riders; Lightning Strikes West; The Lone Avenger; The Phantom Rancher; Pocatello Kid; Range Law; Song of the Trail; Six Shootin' Sheriff; Trail Drive; Tombstone Canyon; Texas Gunfighter; Two Gun Man; Whirlwind Horseman; Whistlin' Dan; Whistlin' Bullets; and White Stallion.

PASSION

Cornel Wilde, Yvonne De Carlo, Raymond Burr.

Wilde is a westerner in a tale of romance and pioneers in old California.

Color; 1954; 84 min.

Burt Berger, Joanna Meredith. A gunfighter turns to the good book to find peace in a small town, but the only peace for any gunfighter is of the everlasting variety.

Color; 1965; 82 min.

PHANTOM RIDER

Buck Jones, Maria Shelton.

A western serial in 15 chapters.

B&W; 1937; 62 min.

A PLACE CALLED TRINITY

Richard Harrison, Anna Zinneman. Two brothers inherit a piece of land called Trinity, but there is a difference of opinion over what to do with the property.

Color; 1975; 97 min.

RANCHO NOTORIOUS

Marlene Deitrich, Arthur Kennedy, Mel Ferrer.



Gabby Hayes and Anne Jeffreys in Return of the Bad Men

A top-notch western drama about a man searching for his girl's murderer.

B&W; 1952; 89 min.

RAWHIDE

Lou Gehrig, Smith Ballew. The Ranchers Protection Association is forcing landowners to knuckle under.

B&W; 1938; 60 min.

THE RESTLESS BREED

Scott Brady, Anne Bancroft. A lawyer fights for justice in the old west.

Color; 1956; 81 min.

THE RETURN OF JESSE JAMES

John Ireland, Ann Dvorack. A dead-ringer for the fabled outlaw

may end up dead when he convinces people that James is still alive.

B&W; 1951; 77 min.

RETURN OF THE BAD MEN

Randolph Scott, Robert Ryan, Anne Jeffreys, Gabby Hayes. Scott intends to claim a spot in Oklahoma territory, and claims a lady's heart in the bargain.

B&W; 1948; 90 min.

Favorite Western Stars . . . Favorite Western Stars . . .

Tim McCoy

Aces and Eights; Arizona Bound; Below the Border; Bulldog Courage; Ghost Patrol; Gunman from Bodie; Lion's Den; Outlaw's Paradise; Six Gun Trail; Roaring Guns; and The Traitor.

Roy Rogers

Apache Rose; Bad Man of Deadwood; Bells of Coronado/King of the Cowboys; Bells of Rosarita; Billy the Kid Returns; Carson City Kid; Colorado; The Cowboy and the Senorita; Don't Fence Me In/Sheriff of Wichita; Eyes of Texas; The Gay Ranchero; Hands Across the Border; Heart of the Golden West; Helldorado; Home in Oklahoma; Idaho Kid; In Old Caliente; In Old Cheyenne; Jesse James at Bay; King of the Cowboys; Lights of Old Sante Fe; Man



from Cheyenne; Man of the Frontier; My Pal Trigger; Nevada City; Night in Nevada; On the Old Spanish Trail; Ranger and the Lady; Red River Valley; South of Santa Fe; Song of Texas; Song of Nevada; Song of Arizona; Silver Spurs; Shine on Harvest Moon; Saga of Death Valley; Rough Riders Roundup; Romance on the Range; Trail of Robin Hood/Along the Navajo Trail; Trail of Robin Hood; Sunset Serenade; Sunset in El Dorado; Springtime in the Sierras; Southward Ho; Under California Stars; Under Nevada Skies; Under Western Stars; Utah; West of the Badlands; and Yellow Rose of Texas.

John Wayne

The Alamo; Allegheny Uprising; Angel and the Badman; Blue Steel; Dakota; The Dark Command; Desert Trail; El Dorado; The Fighting Kentuckian; Flame of the Barbary Coast; Fort Apache; Frontier Horizon; Helltown; In Old California; A Lady Takes a Chance; Lone Frontier; Lucky Texan; The Man from Utah; The Man Who Shot Liberty Valance; 'Neath Arizona Skies; The Night Riders/Home on the Range; Paradise Canyon; Randy Rides Alone; Red River; Riders of Destiny; Rio Grande; Rio Lobo; The Shootist; She Wore a Yellow Ribbon; The Searchers; Sagebrush Trail; Rooster Cogburn and the Lady; The Trail Beyond; Texas Terror; Tall in the Saddle; Star Packer; True Grit; The Undefeated; West of the Divide; and Winds of the Wasteland.

RIDE IN THE WHIRLWIND

Jack Nicholson, Cameron Mitchell, Millie Perkins.
A brooding western about three men mistaken for outlaws and their pursuit by an angry posse.
Color; 1971; 83 min.

RIDE THE MAN DOWN

Rod Cameron, Ella Raines, Brian Donlevy.
The death of a wealthy rancher cause a land rush for his property.
Color; 1953; 90 min.

RIDERS OF DEATH VALLEY

Buck Jones, Lon Chaney, Jr., Dick Foran.
A 15-chapter serial.
B&W; 1941; 195 min.

RIO GRANDE RAIDERS

Sunset Carson.
A stagecoach driver discovers his younger brother is involved with crooks in a rival stage company.
B&W; 1946; 54 min.

ROARING SIX GUNS

Kermit Maynard.
A story by James Oliver Curwood about the fight for justice in the Northwest.
B&W; 1937; 60 min.

ROGUE OF THE RIO GRANDE

Myrna Loy.
Western drama and adventure with a very young Miss Loy.
B&W; 1930; 52 min.

RUN OF THE ARROW

Rod Steiger, Brian Keith, Charles Bronson.
A Confederate soldier joins forces with the Sioux nation to continue the fight against the Union.
Color; 1956; 85 min.

SADDLE ACES

Rex Bell.
A "B" western with action and Rex Bell.
B&W; 1935; 57 min.

SANTA FE TRAIL

Errol Flynn, Olivia de Havilland, Ronald Reagan.
Jeb Stuart and George Custer are beginning their military career in



Robert Mitchum and Susan Hayward in *The Lusty Men*

this superior western set in pre-Civil War Kansas.
B&W; 1940; 110 min.

SHOOTIN' MAD

G.M. "Bronco Billy" Anderson, Joy Lewis.
A classic villain is out to take over a town, and the love of a young lady, in this silent western.
B&W; 22 min.

THE SHOOTING

Warren Oates, Millie Perkins, Jack Nicholson.
A mysterious lady hires a bounty hunter for a dangerous trip across the desert.
Color; 1966; 82 min.

SHOTGUN

Sterling Hayden, Yvonne de Carlo.
A deputy is on the trail of a killer, when he is sidetracked by a beautiful girl.
Color; 1955; 80 min.

SINGING COWGIRL

Dorothy Paige.
Western adventure with a lady cowpuncher.
B&W; 1941; 60 min.

SOLDIER BLUE

Candice Bergen, Peter Strauss, Donald Pleasance.
A western adventure story about a cavalry escort for a gold shipment through Indian territory.
Color; 1970; 109 min.

SOMBRERO KID

Don "Red" Barry, Lynn Merrick.
The Kid joins a band of outlaws to get evidence against the leader, the local banker.
B&W; 1942; 54 min.

SON OF A GUN

Bronco Billy Anderson.
A cowpoke is banished by the townspeople, but wins their favor when the town is threatened by gamblers. Silent classic.
B&W; 1919; 69 min.

STATION WEST

Dick Powell, Jane Greer, Burl Ives, Raymond Burr.
Powell plays an army intelligence officer who goes undercover to find out who is hijacking gold shipments.
B&W; 1948; 92 min.

SUNSET CARSON RIDES AGAIN

Sunset Carson.
One of the last westerns starring Sunset Carson.
B&W; 1950; 62 min.

TENNESSEE'S PARTNER

Ronald Reagan, John Payne, Rhonda Fleming.
An adaptation of Bret Harte's story of gambling and a double cross.
Color; 1955; 87 min.

TENSION AT TABLE ROCK

Richard Egan, Dorothy Malone.
An outlaw kills his partner in self-defense and then tries to start a new life.
Color; 1956; 93 min.

TERROR OF TINY TOWN

Jed Beull's Midgets.
A musical western with an all-midget cast.
B&W; 1933; 65 min.

THEY CAME TO CORDURA

Gary Cooper, Rita Hayworth, Van Heflin.
Cooper plays a career soldier who must decide the price of his honor when he gets involved with hostiles on the Mexican border.
Color; 1959; 123 min.

THREE DESPERATE MEN

Preston Foster, Virginia Grey, Jim Davis.
The three men in the title are accused of murder and turn outlaw.
B&W; 1950; 71 min.

3:10 TO YUMA

Van Heflin, Glenn Ford, Felicia Farr.
The train to Yuma is carrying a sheriff and his prisoner.
B&W; 1957; 92 min.

THUNDER PASS

Charles Bickford, Martha Hunt, Gilbert Roland.
Two brothers are separated when their wagon train is attacked for the gold it's carrying.
B&W; 1937; 58 min.

TOM HORN

Steve McQueen, Linda Evans, Richard Farnsworth.
An excellent western with lots of realism about legendary bounty hunter Tom Horn. A superb role for McQueen in one of his last films.
Color; 1980; 98 min.

TRAIL STREET

Randolph Scott, Robert Ryan, Anne Jeffreys, Gabby Hayes, Jason Robards.
Wheat, fields and fields of wheat, and the settling of the Kansas wilderness.
B&W; 1947; 84 min.

THE TREASURE OF THE SIERRA MADRE

Humphrey Bogart, Walter Huston, Tim Holt.
John Huston's Oscar-winning and powerful story of three modern-day prospectors looking for gold, and what greed does to their relationship.
B&W; 1948; 126 min.

TRINITY IS STILL MY NAME

Bud Spencer, Terence Hill.
Hill and Spencer create their roles as the carefree rustler brothers.
Color; 1975; 117 min.

TUMBLEWEED TRAIL

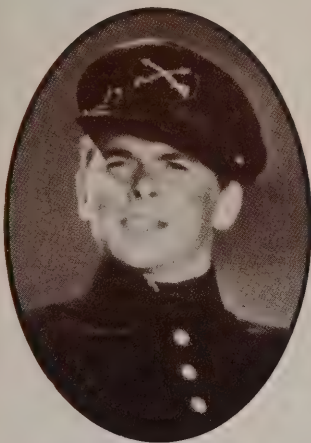
Bill Boyd, Art Davis.
The Tumbleweed Trail has action packed into every mile.
B&W; 1942; 57 min.

TWO RODE TOGETHER

John Ford, James Stewart, Richard Widmark, Shirley Jones.
The settling of the West is plagued by Indian trouble, as seen here when the Comanches capture whites.
Color; 1961; 109 min.

VALLEY OF TERROR

Kermit Maynard, Rocky the Horse.
One of James Oliver Curwood's stories of the old west.
B&W; 1938; 59 min.



**Ronald Reagan in
Santa Fe Trail**

VANISHING AMERICAN

Richard Dix, Noah Beery.
The injustice done to the Native American is depicted in this silent epic.
B&W; 1926; 114 min.

THE VANISHING LEGION

Frankie Darro, Rin Tin Tin, Harry Carey.
A western serial in 12 chapters with the wonder dog.
B&W; 1931; 156 min.

VENGEANCE OF RHANNAH

Rin Tin Tin, Jr.
An exciting adventure with the German shepherd of western film fame.
B&W; 1930s; 50 min.

WAGON TRAIL

Harry Carey.
The sheriff's son is a gambler, and under suspicion of murder.
B&W; 1935; 59 min.

WAGON WHEELS

Randolph Scott, Gail Patrick.
Scott leads settlers through hostile Indian land to Oregon territory.
B&W; 1934; 54 min.

WAGONMASTER

Ben Johnson, Joanne Dru.
A John Ford film about cowboys who join Mormons on their cross-country trek.
B&W; 1950; 85 min.

WATER RUSTLERS

Dorothy Paige, Dave O'Brien.
An unscrupulous land baron decides to dam the creek and dry out the cattle pastures.
B&W; 1939; 55 min.

WHEN THE WEST WAS YOUNG

Randolph Scott, Sally Blaine.
Randolph Scott in one of his earliest sagas.
B&W; 1933; 70 min.

WHITE COMMANCHE

Joseph Cotton, William Shatner.
The usual conflict erupts between twin brothers of mixed blood.
Color; 1967; 90 min.

WICHITA

Joel McCrea, Vera Miles, Lloyd Bridges.
Wyatt Earp accepts the job of marshal, but Wichita is a lawless town.
Color; 1955; 81 min.

THE WILD BUNCH

William Holden, Ernest Borgnine, Robert Ryan.
Sam Peckinpah's bloody western saga of a group of aging bandits in the final days of western glory.
Color; 1969; 127 min.

WILD MUSTANG

Harry Carey.
A sheriff's son joins an outlaw gang to help his dad spring a trap.
B&W; 1935; 62 min.

WINGS OVER WYOMING

George O'Brien.
A Hollywood cowboy on vacation comes to the aid of ranchers plagued by racketeers.
B&W; 1937; 65 min.

WOMEN OF THE TOWN

Albert Dekker, Claire Trevor.
Suave marshal Bat Masterson becomes involved with a local dance hall girl.
B&W; 1944; 89 min.

Introducing

Power Consultants Microwave Home Satellite Receiver

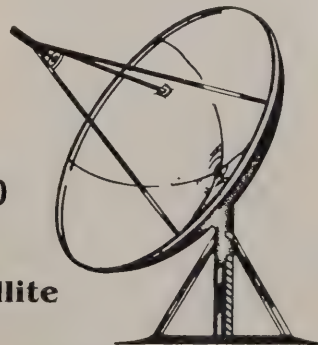
Power Consultants Microwave has the latest in satellite receiver systems equipment. We offer good service with fast delivery and quality components for your complete system. Our price is very competitive. Our NEW RF Modulator, FCC approved, gives ultra stable operation and includes AC power pack. It comes with channel 2 & 3 selection or channel 3 & 4 selection, take your choice. If you're looking for a single system or if you're looking for a dealer delivery, look no more.

For all the details
CALL
Mary Bellamy
(501) 225-3100

Southern Satellite TV Systems

SSTVS — A Division of Power Consultants Microwave Inc.

#8 Woodberry Road
Little Rock, Arkansas 72212
501-225-3100





Alan Ladd in *Shane* (1953)

How the Westerns Won . . .

(continued from page 79)

Ford's best, in its treatment of the Indians, in its moving script, in its subtle camera work. But the cult film, perhaps the most beautiful he ever made, is *Wagonmaster* (1950). Starring Ward Bond, *Wagonmaster* has no pretensions as an epic. It is simply and splendidly Ford's love song to the old west.

Three other honest films of the Fifties prove the point. *High Noon* (1952), though its theme is off beat, bowing to the "truth in Westerns" trend, is another honest shoot-em-up, exploiting neither sex nor violence. *Wichita* (1950s) is a lively, absolutely first-rate Western in the old tradition, one of the best of the post war years. No sensationalism here. And then there's *Shane* (1953), one of our great classics. Though it is starkly realistic, the beauty of the film is inescapable, an evocation in direction, script and camera work, of an authentic American West.

Such Westerns as these, in the old mood of the genre, seldom come our way today. Our cowboy heroes have vanished into the limbo of nostalgia. The comforting black and white of good and evil, of courage and goodness triumphing over villainy, of simply knowing the white hats from the black hats, is no more.

The stars of today portray, in the modern Western, men and women sadly afflicted with the doubts, problems and sins of us poor common folk. We have "truth" indeed in our Westerns. Certainly, though Hollywood continues to turn out its quota of dull, stereotypical cowboy fare, some of the recent films are very good.

The Lusty Men (1960s) skillfully probes the loneliness of the rodeo riders; *Cowboy* (1960s) is a fine, realistic documentary, deglamorizing the mundane world of the cowboy; *Cat Ballou* (1964), with its aging, drunken gunfighter, is a slick little comedy; *Major Dundee* (1965) is a very fine Sam Peckinpah entry; and *Duel at Diablo* (1966, alas very bloody) and *Will Penny* (1968, touchingly realistic) are fine, honest Westerns in the new mode.

Hombre (1967), with its taut script and splendid direction (Martin Ritt directed Paul Newman—the "Hud" team together again) is another winner. James Wong Howe was still around to film this, one of this

Western's many plusses. *True Grit* (1969) gives us John Wayne as the reluctant, boozy old sheriff in a delightful tale of a gutsy young lady; *One Hundred Rifles* (1969) is an action-packed, satiric film of epic proportions; and *Butch Cassidy and the Sundance Kid* (1969), for all its immorality of outlook, remains an upbeat, unforgettable excursion by those two magic performers, Paul Newman and Robert Redford.

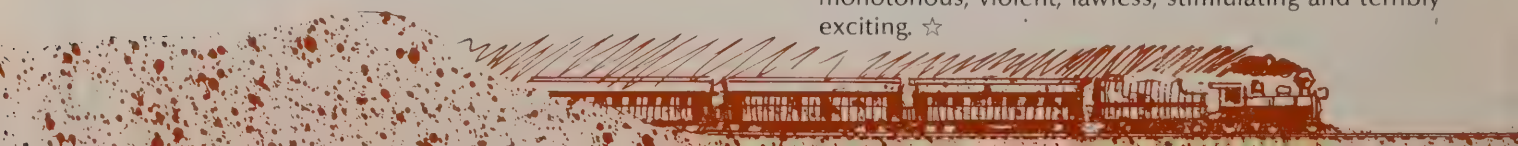
The Wild Bunch (1969) is Sam Peckinpah's no-holds-barred entry. In the unthinking, uncaring violence of its killers, in its total abandonment of moral values, it is shocking. Still, to many, *The Wild Bunch* remains one of the best Westerns ever made. *Soldier Blue* (1970), for all its sadistic brutality, beautifully presents its Indians vis-a-vis the whites. The story of the Sand Creek Massacre of 1864, it is historically respectable. The massacre shots are especially effective.

Also available to video buffs from this era are *The Gun Hawk* (1963, the familiar theme of the aging outlaw trying to discourage a young buck from following in his footsteps); *Great Gundown* (1975, an exceptionally violent oater); *Gun Riders* (1969, John Carradine in this); and *Ride in the Whirlwind* (1966) and *The Shooting* (1967), both starring Jack Nicholson.

While some of us might regret the sex and gore, there is no denying that the good Westerns of today go further toward exploring the true nature of our pioneering past than the stereotypes of fond memory. *Little Big Man* (1970), for instance, is outstanding for its clear insights into the legends of America's West. It is an iconoclastic film, one of the best Hollywood has given us.

Many are the notable Westerns of recent years, stirring explorations of all the facets of the great American myth. Worthy of note are *The Long Walk* (1970); *Flap* (1970); *A Gunfight* (1970, entirely financed by Indians); *Billy Jack* (1971); *McCabe and Mrs. Miller* (1971); *The Last Movie* (1971); *The Hired Hand* (1971); *Junior Bonner* (1971); *J. W. Coop* (1972); *Ulzana's Raid* (1972); *Saga of Jeremiah Johnson* (1972); and most especially and gloriously, a Paul Newman-John Huston effort, *The Life and Times of Judge Roy Bean* (1972).

Perhaps the clear-sighted iconoclasts of today will be able to destroy the myths we have so fondly nurtured, and restore to us our West as it really was—grimy, monotonous, violent, lawless, stimulating and terribly exciting. ☆



Lighting

(continued from page 42)

Table 4

KODAK Light Balancing Filters

Filter Color	Filter Number	Exposure Increase in Stops*	To obtain 3200 K from:	To obtain 3400 K from:	Nominal Shift Value (MK ⁻¹)*
Bluish	82C + 82C	1½	2490 K	2610 K	-89
	82C + 82B	1½	2570 K	2700 K	-77
	82C + 82A	1	2650 K	2780 K	-65
	82C + 82	1	2720 K	2870 K	-55
	82C	⅔	2800 K	2950 K	-45
	82B	⅔	2900 K	3060 K	-32
	82A	⅓	3000 K	3180 K	-21
	82	⅓	3100 K	3290 K	-10
No Filter Necessary			3200 K	3400 K	—
Yellowish	81	⅓	3300 K	3510 K	9
	81A	⅓	3400 K	3630 K	18
	81B	⅓	3500 K	3740 K	27
	81C	⅓	3600 K	3850 K	35
	81D	⅔	3700 K	3970 K	42
	81EF	⅔	3850 K	4140 K	52

*These values are approximate. For critical work, they should be checked by practical test, especially if more than one filter is used.

©Copyright Eastman Kodak Co.

Quartz-Halogen Lamps

Quartz-halogen lamps use a small quartz bulb with a small amount of halogen gas inside the bulb. The halogen gas reacts with the tungsten deposited on the bulb and, in effect, returns the tungsten to the filament. The result is a lamp that, while it does not last any longer, gives a uniform light output over the life of the lamp.

Another important reason for the popularity of the quartz-halogen lamp is its small size, which allows more efficient and compact optical design for "focused" lamp fixtures.

Two disadvantages of quartz-halogen fixtures are the relative non-standardization of the lamp bases and high cost. However, they are highly desirable for battery operated portable lights because of the high lumens

/per watt rating relative to common lamps.

Fluorescent Lights

Common fluorescent lighting cannot be evaluated in the same manner as is incandescent because the light comes from fluorescent phosphors rather than a hot body. The mix of red, green and blue light varies among lamp types and make, and often deficiency in red will give the pictures a greenish cast.

Special fluorescent tubes are made for studio lighting, but they are expensive and must be obtained through special lighting, photographic or video outlets. An alternative, if standard fluorescent tubes must be used, is to color correct the camera with a filter. ☆

DON'T MISS

THE APRIL ISSUE OF VIDEOPLAY!

- Test report on Sharp's portable system—the QC-30 camera and VC2250 recorder
- The Component Video Alternative—including comparisons of monitor/tuner combos by Sony, NEC America and Technica. Component television costs more, but are the results better than with standard TV-VCR set-ups?
- Animated features and cartoons on videocassette
- VIDEOPLAY's second place contest winner, with step-by-step instructions on how to build his winning home video center
- Bob Cooper on home satellite earth stations

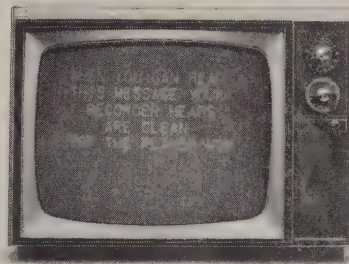
... and much more!

SCOTCH® HEAD CLEANING VIDEOCASSETTES. A SAFE, EASY WAY TO CLEAN VCR HEADS IN JUST SECONDS.

Other video head cleaners may *overclean* and actually abrade the delicate surface of your VCR heads, causing serious damage.

When you use Scotch Head Cleaning Videocassettes, our patented recorded test message eliminates guessing at how much cleaning time is needed. It makes cleaning VCR heads as safe and easy as playing a videocassette.

Insert the Scotch Head Cleaning Videocassette like a normal videocassette. Within seconds our specially formulated magnetic tape will remove deposits that hours of play built up on your VCR heads. When you see our recorded test message clearly on your screen...



...your heads are clean!

Scotch Head Cleaning Videocassettes are available in both Beta and VHS formats. They will help you maintain the best possible picture clarity your VCR can deliver and will last a minimum of 240 cleanings.



SCOTCH® HEAD CLEANING VIDEOCASSETTES. THE TRUTH COMES OUT.

3M

Circle #40 on reader service card

PREVIEWS PREVIEWS PREVIEWS

(continued from page 15)

Also for the younger set, look for Video Gems' new Pippi Longstockings tales—*Pippi in the South Seas*, *Pippi Goes on Board* and *Pippi on the Run*. Also in the offing are *Animation Wonderland*, a collection of animated shorts which won the Peabody award for best children's entertainment; *Legend of the Northwest*, a wilderness adventure where the loyalty of a dog is tested almost beyond endurance; and *Summerdog*, a heart-warming story that asks: what happens to a summer dog when the summer is over?

ON DISC

RCA will add some 160 new titles to its line-up of CED videodiscs in 1982. The first eight to be released are:

Close Encounters of the Third Kind: The Special Edition—The original motion picture re-edited with additional scenes and special effects.



Close Encounters of the Third Kind

LAMBDA VIDEO PRESENTS

MALE VIDEO!

- THE BIGGEST SELECTION—OVER 350 TITLES!
- THE BIGGEST CATALOGUE—4th EDITION!
- LOW, LOW PRICES—FAST, FAST SERVICE!
- THE BEST & HOTTEST XXX RATED TAPES!

ALL MADE FROM ORIGINAL MASTERS!

HAND IN HAND • P.M. PROD. • J. BRIAN • BLUE VIDEO
WM. HIGGINS • BRENTWOOD • FALCON • NOVA
HAWK • MAVERICK • RAMROD • GAGE VIDEO • MARATHON
VCX • TMX • BIZARRE • VIP • AND MORE!

• **SPECIAL ON PREVIEW TAPES!** •

68! SIXTY-EIGHT X-RATED ALL MALE FILMS ON FOUR ONE-HOUR PREVIEW TAPES (VHS OR BETA) **68!**

TWENTY-TWO FROM P.M. PRODUCTIONS FOR \$70.00
SIXTEEN FROM HAND IN HAND FOR \$50.00
TEN FROM J. BRIAN FOR \$50.00
TWENTY FROM THE TMX COLLECTION FOR \$75.00

or **ALL 4 TAPES FOR ONLY \$200.!**

FREE CATALOG—SENT WITH ANY PREVIEW TAPES ORDER!
ADD \$3.50 PER TAPES FOR SHIPPING & INSURANCE

SEND ONLY \$3.00 FOR OUR SUPER CATALOGUE!
(Includes coupon good for \$5.00 off first order.)

WRITE TODAY TO THE BEST!

LAMBDA VIDEO

P.O. BOX 323, DEPT. VP
EAST ROCKAWAY, N.Y. 11518

WHOLESALE & DISTRIBUTOR PACKAGES AVAILABLE

SPECIAL—THE ONLY FULL LENGTH ALL GIRL FILM!

"LESBIAN ORGY"

Starring: "VICTORIA" CENTERFOLD GIRL
RUTH JONES • SHARON ASHES AND
FOUR PLAY TOYS (MEET ALL 7!)

VHS OR BETA: \$95.00 POST PAID

OVER THREE YEARS OF HIGH QUALITY SERVICE!
MASTERCARD & VISA ACCEPTED

EXPLICIT ADULT

TURN ON VIDEO

All New Production Of

DEEP THROAT GIRLS

Starring
Miss USCHI DANSK
Famous Swedish Erotic
Video Superstar
JOHN HOLMES
X Rated Video Superstar
Introducing
Gloria Showers
Earthia Wilson
Robert Masters

Untold thousands have longed for the succulence of Uschi's Luscious burning talents and now she is yours. 1 hr. collectors video-cassette VHS or Beta \$79. (714) 595-6889 Prompt Service. Super 8mm \$60.

C.O.D.'s \$10. (U.S. Only) Postage
Uschi, P.O. Box 663, Walnut, CA 91789 D VP3

GUESS WHO?

ADULT XXX

Well known movie and TV star and his wife in erotic moments. In color. (just made).

You'll see everything but his face.

In **VHS or BETA 1**
(Must be over 21).

Send \$30.00 to:

CAMERA
P.O. BOX 2101
VAN NUYS, CA 91404

WS PREVIEWS PREVIEWS

Up In Smoke—The film debut of Cheech and Chong, whose irreverent rambunctious satires of life in the 60s have left nightclub and concert audiences screaming for more.

The Blue Lagoon—Starring Brooke Shields, the tale of two youngsters who are shipwrecked on a deserted tropical island and how they grow up alone and discover themselves and love.

Rocky II—Written, directed by and starring Sylvester Stallone, this is an exciting sequel to the 1977 Oscar-winning Best Picture.

Carnal Knowledge—Jack Nicholson and Art Garfunkel star as friends who, from college days in the 1940s through middle age in the 1070s, share their innermost thoughts about women and sex. Also featuring Ann-Margret, who earned an Academy Award nomination as Bobbie.

Blue Hawaii—One of the most popular Elvis Presley movies, this one takes us from beaches to mountains to countryside as Elvis chases women and a career while trying to keep one

foot in the water. Angela Lansbury delivers a delightfully funny performance as Elvis' mother.

Superbowl XV—Highlights of the 1980 NFL season recount the show-downs that led to Super Bowl XV and the big game itself. Also, the season's highlights of the two teams that marched to the 1980 Super Bowl, the Oakland Raiders and the Philadelphia Eagles.

Meet Mr. Washington/Meet Mr. Lincoln—These award-winning shows produced for NBC's *Project Twenty* series tell the stories of both men through their own words, letters and diaries of contemporaries, and newspapers of the time.

Optical Programming Associates is bringing out an exciting interactive cooking course for owners of laser-optical disc players. **Master Cooking With Craig Claiborne and Pierre Franey**, with chapter, index and frame references, guides the viewer through the preparation of four complete meals. Two soundtracks offer a choice of recipe information or chatter about

the various dishes, and a rundown of various kitchen equipment and cooking techniques is included. It's more of a complete guide to cooking—offering substitutions for various ingredients, etc.—than just a program on how to prepare four specific meals.

ODDS AND ENDS

Playboy photographer David Chan stars in the first of a new series on famous photographers being released by Sherwood Video. Presented in a documentary format, the 60-minute program shows Chan photographing former centerfold Jill DeVries and another model as he describes his techniques on lighting, posing and interaction with his subjects. Chan is a 16-year men's magazine veteran. Also in the program, photo stylist Sherral Snow explains when and how to use different types of makeup, and demonstrates special techniques helpful in achieving beautiful photographs of women.

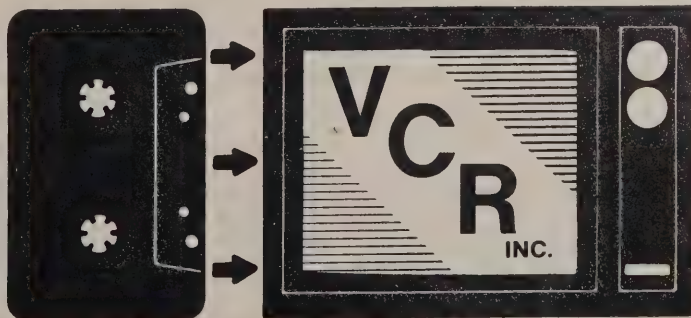
BE IN THE BUSINESS OF THE FUTURE

VIDEO SPECIALTY STORES FROM \$5,500 TO \$34,900

The Video Industry is now a vertical climb. VIDEO CASSETTE RENTALS, INC. has created a new concept which allows you to enter on the ground floor of this exciting and unique industry. We are looking for progressive people who want to own their own prosperous business and involve

others at the same time. Initial investment of \$5,500 to \$34,900 is FULLY SECURED by an extensive video library and equipment. We expect your initial investment to be paid back within the first year via our concept of secured territory sales and the nature of our market.

1. NO FRANCHISE FEE
2. NO ROYALTIES
3. GROUP BUYING
4. COMPREHENSIVE TRAINING
5. PROVEN SUCCESS BY SECURED TERRITORY



For information and details contact: Thomas R. Revell, President
V.C.R., INC.
 5400 Diplomat Circle, Suite 210
 Orlando, FL 32810
 (305) 628-9676

Circle #34 on reader service card



Scrambled Signals

When rearranged, the following groups of three letters will make sense and provide the words asked for in each of the five sections. The letters are in the correct order; all you need to do is rearrange the groups. There will be, of course, no spaces between the words. As a

warm-up, rearrange the following six groups and get one of the major features in this issue (two words): **TER VIE NMO WES** = _____.

The answer to that one is **WESTERN MOVIE**. See how easy? If you give up, the answers are below.

Introducing...

MINI-COOL

The power packed mini-light for film and video cameras

Glare-free! 90% Heat-free!

Handle and universal mount included. You can

- Hold it in your hand
- Mount it on a TV camera, movie camera, lighting stand or wall
- Available with daylight conversion

MINI-COOL is the first portable, photographic light fixture designed for the consumer video market. Color for color and ounce for ounce, the MINI-COOL delivers more **heat-free** light than any other system in the world. Infrared and ultra-violet lights are selectively eliminated, shedding only glare-free, 90% **heat-free** pure light on your subject. Your results will be phenomenal!

By merely changing the bulb and power source, the 3200K bulb at 250 watts 120 volts produces more light than existing 500 watt systems, and 100 watts 12 volts produces double the light of existing systems. Lightweight, all aircraft grade aluminum construction. Attractive black Teflon finish. Weight just 12 oz.

\$129⁵⁰

SUGGESTED
RETAIL PRICE

DEALER INQUIRIES INVITED



COOL-LUX LIGHTING INDUSTRY, INC.
P.O. Box 4716
North Hollywood, CA 91607
(213) 761-8181

1. Down the tubes (5 words)

HIC	EWV	IDI	TIC	LUM	ORT	BIC
ONV	ICO	ONN	NSA	CON	ONP	

2. A clean sweep. (5 words, but 4 answers)

ASS	IDE	EHE	SWA	UID	ADS
ETT	NGC	BGU	CLE	SFL	ANI

3. Once over lightly. (9 words, but 7 answers)

HAL	LOO	NEL	TOR	BAR	AND
RTZ	NST	SPO	ORS	RES	OGF
LEC	QUA	NDO	DSF	REF	TSF

4. They went that'a way! (15 words, 5 answers)

HED	CID	ANC	HCA	NDT	HNO	ITT	VER
XBO	SSI	UND	EGR	DRE	TRU	UTC	HES
EBT	ONB	DYA	CRI	HIG	EKI	WIN	

5. A few to wish on. (23 words, 11 answers)

COT	NEA	OOP	PHY	MMI	WIL	ROW	TER	LON	CKB
DOL	HNW	DEV	MUR	NNA	SSI	OPA	AYN	UTR	YMA
DIE	DYC	PHS	XGE	HNN	INE	YGA	NAU	TJO	ERH
RAN	NJO	ETO	WAL	RYC	NDY	BRE	HIL	GCA	LSA



Answers to
the Patchwork puzzles:

1. Orthicon, Saticon, Plumbicon, Newvicon, Vidicon (camera pick-up tubes).
2. Cleaning cassette, swab, fluid, guide (relating to VCR maintenance).
3. Quartz-halogen, standard, reflector, spots, floods, fresnel, barn doors (types of lighting equipment).
4. True Grit, Butch Cassidy and the Sundance Kid, High Noon, The Oxbow Incident, Red River (Westerns).
5. Randolph Scott, Johnny Mack Brown, John Wayne, Tom Mix, Gene Autry, Gary Cooper, Hopalong Cassidy, Chili Wills, Andy Devine, Walter Brennan, Audie Murphy (Western stars).

Compact Universal VCR Carry Case

VID-202



Features:

- Carries Most ½" Portable Systems.
- Interior Zipper Pocket For Cables And Accessories.
- Convenient Shoulder Strap.
- X Stitched & Riveted Heavy Duty Handles.
- Industrial Grade Zippers.
- Back-To-Back Carrying Design.
- Extra Heavy Duty Padded Construction.
- Available In Black Or Dark Brown.

List Price: \$70.00

Video Is Our Bag!

Video Accessories Ltd.

14 Sherry Lane, Darien, CT. 06820
(203) 655-3309

represented nationally by
VIDEO COMPONENTS INC.
WE'RE KNOWN BY THE COMPANIES WE REP.
401 south main street, spring valley, new york 10977
(914) 356-3700

**CHECK
OUT
SCOTCH[®]
VIDEOCASSETTES**



CASE SALE AND FACTORY AUTHORIZED \$25 CHECK

Buy a case of 10 Scotch VHS T-120 or Beta L-500 Videocassettes at our special sale price and get a \$25 check direct from Scotch Videocassettes. Limit 1 case per household. Rebate requests must be postmarked by April 17, 1982.

Effective net cost per	Scotch VHS T-120-\$10.49	
CALL FOR SALE	Scotch Beta L-500-\$ 7.49	
PROMO ON NEW		
SCOTCH BETA L750.	Scotch VHS T-120	Scotch Beta L-500
Regular Price	\$149.90	\$119.90
Special Sale Price	\$129.90	\$ 99.90
Less Factory Authorized Rebate	\$ 25.00	\$ 25.00
Your Effective Net Cost	\$104.90	\$ 74.90

1(800)645-2317
In N.Y. State (212) 632-8484



48 Urban Avenue, Westbury, New York 11590

CLASSIFIED

XX YOU ASKED FOR IT! WE'VE GOT IT! XX

"THE EROTIC AMATEUR VIDEO COLLECTION"

- ★ See real people (not professionals) performing their most kinky sexual practices, live on videotape!
- ★ See the guy and girl next door.
- ★ See spontaneous sex, without a script.
- ★ Homemade by amateurs, using our professional equipment.
- ★ We guarantee quality—No other amateur video can.
- ★ Volume-one contains over 1 hour of TRUE EROTIC SEX!

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

"THE VIDEO CATALOG OF EROTIC CLOTHING AND MARITAL AIDS"

- ★ See the latest men and women's bedtime fashions.
- ★ See them live on videotape. A full 55 minutes.
- ★ See lotions, creams, gels and lubes.
- ★ Watch amateurs use new sexual toys on each other.
- ★ See the latest adult party games.

Get yours now! Specify title. Beta or VHS Special Introductory Offer.

Limited Time Only.

\$39.95 ea. or get BOTH for only \$69.95

Add \$2.00 Postage per title

Adults 21 & Over. Signature required

N.Y. Requires additional sales tax

VPX

Dept. V P.O. Box 340 Staten Island, NY 10312

Circle #113 on reader service card

BOX OFFICE VIDEO

Free: Vinyl Cases/Title Searches
Discount Prices/Video Discs
80 page catalog with recent
Hollywood interviews:
\$2.00 refundable

AMH Film Dist. Dept. VP
P.O. Box 164, Willows, CA 95988

Circle #100 on reader service card

HEY! ALL YOU VIDIOTS

Convert VCR counter readings to true tape time left.
Durable TAPE TIME CHART sized for easy storage
Priced at only \$5.00 postpaid

Send VCR type, brand, model #, your name, address
and \$5 to S. Galovic, 7091 Broadway, Merrillville, IN 46410.
Dealer Inquiries Invited

Circle #105 on reader service card

FREE MOVIE POSTERS, STILLs, ADULT SLIDES AND DISCOUNT COUPONS.
Details with our free catalog of videocassettes, listing hundreds of titles. All ratings at super discount prices, plus trade-in plans. Also video recorders, cameras, video games, computers and accessories. **CONTINENTAL FILMS, Dept. CVP, 18 Lynbrook Road, Poughkeepsie, NY 12603**

Circle #102 on reader service card

BUILD YOUR OWN low cost, lightweight, low wind resistant 12' SATELLITE ANTENNA. For complete engineered drawings, instructions, and bill of Mat'ls send \$15.00 to: KULICK ANTENNA, 88 Standiford Ave., Sayreville, NJ 08872, (201) 254-7823.

SATELLITE TV RECEIVER KITS FACTORY DIRECT

We have complete kits, individual boards, and components. Call or write for further information.

STAR TRAK SYSTEMS, INC.

404 Arrawanna St.
Colorado Springs, CO 80909
(303) 475-7050

Circle #108 on reader service card

Scotch Brand Videocassettes

T-60 OR L-500--\$11.00

T-120 OR L-750--\$13.98

ALLSOP 3 CLEANER---\$23.95

Scotch Head Cleaner

Videocassette VHS or Beta \$24.95

please state format
NO MINIMUM ORDER

WE PAY POSTAGE SCOTCH, TDK, ZENITH, SONY (OUR PREFERENCE)

Circle #103 on reader service card

THE VIDEO KIT IS HERE! MAKE YOUR OWN BETA OR VHS CASSETTE. BY USING THAT EXTRA VIDEO TAPE IN YOUR CURRENT COLLECTION. \$8.99. SPECIFY FORMAT. VHS OR BETA. VIDEO KIT, P.O. BOX 8571, ROWLAND HGT., CA 91748.

Circle #111 on reader service card

LIGHTS, CAMERA, ACTION—KLAK!!! FINALLY! Ultimate Video Accessory. Professional 12" X 10" Chalkboard "KLAK-KER". Perfect identification of each "TAKE". Must for every video owner. Send \$29.95 to Main Office, MJB VIDEO, Fisher Professional Bldg., 630 S. El Camino Real, San Clemente, CA 92672. Calif. residents add 6% tax. 714-492-5082. Dealer inquiries invited.

Circle #106 on reader service card

THE WIRELESS AUDIO WHIZZ IS HERE! TRANSMIT YOUR VIDEO SOUND TO YOUR FM STEREO SYSTEM (UNBELIEVABLE SOUND IMPROVEMENT). \$29.95. SPECIFY FORMAT, VHS OR BETA. THE VIDEO KIT MFG. CO., AUDIO WHIZZ DIV., P.O. BOX 8571, ROWLAND HGT., CA 91748.

Circle #110 on reader service card

CANADIANS!

YOUR VIDEO HEADQUARTERS IN CANADA!
FREE GIANT CATALOGUE

Americans! We have titles currently not available in the U.S.—Send \$1 bill for lists!

WIDCANADA (Dept. D)

HOME ENTERTAINMENT LTD.

Box 6161, Stn. C, Edmonton, Alberta, Canada T5B 4K6

Circle #109 on reader service card



39⁹⁵
ADD \$2.50 FOR POSTAGE

30 CHANNEL CABLE TV CONVERTER

FREE!
UNUSUAL 96 PAGE ELECTRONIC PARTS & IDEAS CATALOG!

ORDER No. 229AE047
ETCO ROUTE 9N,
PLATTSBURGH, N.Y. 12901
Tel.: (518) 561-8700.

Circle #104 on reader service card

WANTED

WE WOULD LIKE TO IMPORT
BLANK AND PRE-RECORDED
VIDEOTAPES
IN LARGE QUANTITIES

CASH PAYMENT

SEND OFFERS TO:

VIDEO NOVO

BOULEVARD

BISCHOFFSHEIM 39

1000 BRUSSELS, BELGIUM

TEL. 02/ 217.06.90

TELEX: 26.613

Circle #112 on reader service card

"SUPERMAN II", "EXCALIBUR", "ARTHUR", & "OUTLAND" now available in video! Also new: "FOUR SEASONS", "AMERICAN WEREWOLF" & "KRAMER VS. KRAMER". We carry CED & LASER DISCS, too! Giant 100 pg. Sale/Rental Catalog: \$2 (refundable). AMH FILMS, P.O. Box 164-VP, Willows, CA 95988.

EMPTY SHELLS—New Cassettes from extra tape you own. \$5.99. SASE MAYEAUX, Box 1931, Vista, CA 92083.

FREE GIFTS! SPECIALS! CLOSE-OUTS!
Discount tapes, including current titles, classics, animated favorites, concerts, old TV shows, sports and specialty topics—blank tapes, too. Also—VCRs, cameras, enhancers, cabinets, dust covers, and Atari, Odyssey and Intellivision video games. Write today for FREE catalog. VIDEO PERFECT, PO Box 365B, Mahopac Falls, NY 10542.

Circle #114 on reader service card

SUBSCRIPTION TV DECODER KIT \$39.00. Includes parts, manual, and etched board. Manual only \$4.60. **MICROWAVE TV DOWNCONVERTER KIT** \$169.00. Assembled \$220.00. Catalog \$2.00. J & W ELECTRONICS, P.O. Box 61, Cumberland, RI 02864.

CLASSIFIED

DEALERS NEEDED—NEW TVRO ANTENNA CO. Space Antennas, Inc. is a new Midwest concern which will be producing high quality 10' diameter earth station antennas near the Kansas City area. We need dealers interested in purchases of lots 1-10 units. Contact: **SPACE ANTENNAS, INC.** Christopher Davis, 127 W. 10th, Kansas City, MO 64105, (816) 474-5815.

Circle #107 on reader service card

JOIN THE REVOLUTION AT SUSAN'S VIDEO! Participate electronically from the privacy of your own bedroom. Make and trade erotic videotapes or purchase our Best of Amateur Erotic Video, Vol. 1. For free information, send name and address to: **SUSAN'S VIDEO**, P.O. Box 759, Frederick, MD 21701.

SPACE SHUTTLE Columbia's maiden voyage, astronauts Young and Crippen narrate. VHS and Beta, 17 min. \$19.49. **TRANSDVIDEO**, P.O. Box 236, Alief, TX 77411.

DEALERS WANTED: 80 CHANNEL HOME EARTH STATIONS. Min. investment, high profits. Multi-million market expanding 240% this year! **EASTRIDGE SATELLITE**. Collect: (601) 647-3406, Box O, Charleston, MS 38921.

LEARN AT HOME: Hairstyling, \$29.95, VHS or BETA. Catalog \$1.00; refundable on first order. **EDUCATIONAL VIDEO**, P.O. BOX 280108, Dept. VPM, Dallas, TX 75228.

USED ADULT VIDEOCASSETTES FOR ONLY \$34.95 GOOD AS NEW. Adult Videocassettes exchanged for only \$9.95. **NATIONAL VIDEO EXCHANGE**, P.O. Box 1012, Warren, PA 16365.

Years of great movies and TV shows now on **VIDEOCASSETTES**. New releases each month at the lowest cost. Write or phone: **RENAULT ENTERPRISES**, P.O. Box 7098, Minneapolis, MN 55407. (612) 724-4961.

CLASSIFIED RATES

Display ads: \$50 per column inch, maximum of four inches.
Listing ads: \$5 per line, minimum of three lines.

Rates include typesetting. Classified display ads include reader service number. Classified advertising is non-commissionable to advertising agencies.

Rare Political and Historical films on videocassettes. Third Reich, Soviet, Eastern European and Vietnam era. NTSC and Pal standards. Send \$1.00 for illustrated catalog. **INTERNATIONAL HISTORIC FILMS**, Box 29035, Chicago, IL 60629.

LINK ANALYSIS: Understand the science behind satellite TV receiving systems. Six-page print-out on equipment configurations for your site. Signal strengths, antenna gains required. Azimuth, elevation to NA satellites, F1 programmers, frequencies. Link equations solved for antenna/LNA tradeoffs. **PROVIDE LONGITUDE & LATITUDE or nearest highway intersection.** Only \$12. Check, Visa, MasterCard (account number and expiration date).

Channel One
Willarch Road,
Lincoln, Massachusetts 01773
617/259-0333

Circle #101 on reader service card

Bizarre erotic X-rated stars. John Holmes & Uschie Dankas performing in a one hour sexually unique videocassette—\$79.00. Send \$3.00 for colorful catalog. Fetish sex book, \$7.00. All only—\$82.00. **USCHI**, P.O. Box 663, Walnut CA 91789.

NOT ALL WOMEN ARE SWEET CREATURES OF JOY. Don't miss this "X-traordinary" adult motion picture "Maidens of Fetish Street". Definitely not for the timid. A motion picture designed to titillate and shock—\$69. Beta/VHS. Erotic personalized picture cartoon story book—\$8. **MOVIES**, P.O. Box 4084, Diamond Bar, CA 91765.

MUD WRESTLING—STRONG GIRLS. Savage boxing XXX adult style action one-hour sound videocassette—\$79. Beta/VHS. Battling sexy book—\$8. Colorful adult vicious catalog—\$3. **JUDY**, P.O. Box 847, Brea, CA 92621.

NEED PEOPLE with VHS/VCR to record from Network/HBO for me and send it to South America. Must be a good recorded program. Will regularly pay for all. Recording time not less than 4 hours. Write for details to: Dr. Elbio Taroco, Colonia 1810 AP. 502, Montevideo, Uruguay.

HOME ENTERTAINMENT

Major motion pictures. Family—Adult...
1000 Titles. After 12 purchased tapes—
get one FREE. Blank tapes also available.
Low, low prices. Send for free price and
title list. **VIDEO TRADING POST**, Box
89-P, Whitestone, NY 11357.

Circle #115 on reader service card

REVIEWS

(continued from page 9)

that Bonsai simply mimics the forms found in nature, and miniaturizes them.

Techniques for potting, paring, and otherwise handling a variety of small saplings so they will eventually hold the majestic appearance of trees many decades older are covered. By watching the videocassette several times, one could, in fact, create a Bonsai tree. And the appreciation of this art form blossoms.

The background music in this segment is light, and complements the subject. Explanations are more detailed than in *Pruning Practices*, and the program is more narrow in scope. Therefore, it succeeds rather well.

The last segment of the program, which lasts about ten minutes, is called *Nature's Colors—The Craft of Dyeing with Plants*. The portion is narrated by Lenore Canter; a female voice provides a welcome change from the sonorous male tones of the preceding two parts.

Here, techniques for using ordinary plants, vegetables, barks, roots, berries, mushrooms, weeds and the like to dye wool are covered. The process of mordanting, which ensures color fastness in the dye lot, is explained in welcome detail. All ingredients and each step are carefully disclosed.

The uninitiated dyer is startled at the many hues which one vegetable skin can produce, depending on the type and strength of the mordant used. Lichens produce pinks and purples; carrot tops, greens; tomato vines, pale yellows; and this is just the beginning.

This segment is also successful. One gains an appreciation for the craft of dyeing, and can do it without outside help simply by watching the tape.

A complete listing of the Master-Vision library of videotapes follows the last segment of the tape. This is a convenience for those interested in other special interest topics.

This trilogy of *Professional Techniques in Horticulture* may begin shakily, but by tape's end, the segments have been both entertaining and instructive. For amateur horticulturists, it is recommended. Available in most video stores, the program is \$54.95 on Beta, \$59.95 on VHS. ☆

—David Stetson

VCR Repair

(continued from page 47)

11. IF YOU HEAR STRANGE NOISES EMANATING FROM THE MACHINE, OR IT APPEARS THAT THE TAPE IS BEING EATEN, PRESS STOP IMMEDIATELY. DO NOT EJECT THE TAPE. Unplug the player and remove the top cover to see what the problem is. If the tape is wound around the head-wheel or other components, you had best cut the tape at the point where it exits the cartridge and very carefully unwind it from the machine's innards. Then take the machine to your local

repair house for a professional evaluation of the problem.

12. If everything is okay and no other fault exists in the player, you should see a picture. The tracking control may need some adjusting, but you should be able to attain a decent picture.

13. Next, put in the test tape or the tape you recorded earlier in the machine's life in its slowest speed. Place the player's tracking control in the center position. Press PLAY.

14. You are about to check for interchangeability error. Normally, when re-

placing video heads in most VHS machines, not much interchangeability error will be noted. However, the following test will confirm that the tracking is within normal limits.

15. With perfect tracking alignment, you should have a fine picture with no adjustment of the tracking control required. You should be able to turn the tracking control approximately an equal amount in either direction before seeing an increase of noise in the picture. You should also be able to rotate the control up to 30° on either side of the detent before picture noise is apparent. With this accomplished, you can rest assured that no further alignment is needed.

16. If you must turn the tracking control to one end in order to remove the noise in the picture, or if you cannot get rid of the noise bar at all, you have a tracking problem which requires the attention of a technician with appropriate test equipment.

17. If the alignment is not perfect, but you are getting a clear picture with the control slightly off center, try playing a number of your other tapes recorded at various points during the life of the machine. If they play well, the chances are your machine is still within tolerance. If some of them cannot be cleared of mistracking noise, then a professional alignment is needed.

If you have performed one, or some of these procedures and solved the VCR problems you were having, then congratulations! If you have elected not to try them, or else had a problem along the way that you felt a professional servicer could best resolve, then you were smart in not going any further.

At this point, we have exhausted the types of servicing that can be performed in the home without special training and test equipment. If you are really an electronics hobbyist, obtain a copy of the manufacturer's service literature pertaining to your particular model. You will undoubtedly find it quite interesting—and rather complex.

Videocassette recorders are not simple machines—and unlike many consumer electronics products, they will require maintenance from time to time. If you are capable of performing some of the simpler procedures, then you will save time and money. And best of all, you'll get the satisfaction of having done the job yourself. ☆

Own your own Great Movies AT 1/2 PRICE from Blackhawk Films! VHS or Beta VIDEOCASSETTE

HOURS OF FAMILY ENTERTAINMENT

right in your own home with these
all-time-great films.

SPECIAL 1/2 PRICE INTRODUCTORY OFFER!

To help acquaint you with the wonderful movies available from Blackhawk Films, we're offering your choice of 3 memorable motion pictures... all at half price!

Clara Bow stars in *IT* (1927) and, in fact, became the "It" girl of the roaring 20's. "To have 'It', the fortunate possessor must have that strange magnetism which attracts both sexes". (71 min. Black & White, with musical score by William Perry). *THE FATAL GLASS OF BEER* (1933) and *THE POOL SHARK* (1915) star the magnificent W. C. Fields. "It ain't a fit night out for man or beast" Fields proclaims in "Fatal Glass" (18 min. Black & White, talkie), while he and his rival for the girl settle their differences at the pool table in "Pool Shark" (11 min. Black & White, with musical score by William Perry). *MELODY TRAIL* (1935) has us back in the saddle again with Gene Autry and Smiley Burnette for some great riding, roping, bronc riding and steer wrestling at the rodeo! Then... cattle are rustled, a baby seems kidnapped and Gene has to capture the kidnapper and the rustlers singlehanded, almost. (60 min. Black & White, talkie with songs)

ORDER TODAY — SPECIAL HALF-PRICE OFFER ENDS MAR. 31, 1982

FREE BONUS

Order now! Get your FREE Blackhawk Film Digest—world's greatest source of videocassette, videodisc, Super 8 and 16mm, silent and sound home entertainment films and 35mm. 2" x 2" color slide sets (No "X" of course). PLUS special offers, money-saving sales! LIMIT: One of each title per customer.



The Greatest Selection of Things to Show! Established 1927.

Please send the film(s) checked below on your special introductory offer. (Be sure to check

☐ VHS or ☐ Beta)

☐ IT.....(71 min.) ~~\$54.98~~ \$27.49

☐ THE FATAL GLASS OF BEER/THE POOL SHARK.....(29 min.) ~~\$39.98~~ \$19.99

☐ MELODY TRAIL.....(60 min.) ~~\$54.98~~ \$27.49

I enclose ☐ check ☐ money order for \$.....; or,

Charge to my: ☐ Visa Acct. No. Exp. Date

☐ Master Card Acct. No. Exp. Date

If Master Card, include Code No.

☐ Here's \$1.00. Please send me just a catalog

NAME

ADDRESS

CITY STATE ZIP

Orders must be postmarked before midnight, Mar. 31, 1982

Dept. 604, Box 3990,
1235 W. 5th Street
Davenport, Iowa 52808

America's Biggest Discount Warehouse



VIDEO WHOLESALERS SYSTEM

GUARANTEED LOWEST PRICES ON ALL MAJOR BRANDS!

SAVE UP TO 40%



JVC HR-6700 U VIDSTAR VIDEO RECORDER 2hr/6hr, 7day/6 program, electronic tuning, slo-mo, still frame, speed play. New model HR-7300U now available.



PANASONIC PV-4500 PORTABLE VIDEO RECORDER Super light weight, electronic tuner, timer, built-in charger. Battery or AC. Records up to 6 hrs. Still frame, slo-mo, remote pause, forward/reverse rapid scan. Same features as QUASAR 5410/520 tuner.

SONY KP-5020/7220 PROJECTION TV. 2-piece cocktail table projector. Sharp, super bright F-1 lens. 4 ft or 6 ft screen. Also available - KP-5040 (1-piece 50" unit) and KP-7240 (1-piece 72" unit).



★Sony★JVC★Panasonic
★RCA★Quasar★Magnavox
★Technicolor★Mitsubishi
★Hitachi★Zenith★Sharp★Akai
★Toshiba★Sanyo★Paramount
★MGM★Media★MCA★Columbia
★Disney★Magnetic Video
★Warner Bros★TDK★Memorex
★Fuji★Maxell★Atari★Bally



QUASAR VK-731 DELUXE COLOR CAMERA New, lightweight design, F-1.6, 2-speed, 6-1 macro zoom lens. Fade in/out, auto/manual Iris, color temp, light shoe, boom mike. Same features as PANASONIC PK-751.

PIONEER LASERVISION VIDEO DISC SYSTEM VP-1000 Freeze frame, variable slo-mo, forward/reverse scan, stereo sound, optional full function wireless remote with access search. Hundreds of discs available.



RCA VFT-650 VIDEO RECORDER New, ultra-trim design, forward/reverse rapid scan, slo-mo, freeze frame, 14-day program, 13 function wireless remote control. Same features as PANASONIC PV-1770 and QUASAR VH-5610.

INVESTMENT OPPORTUNITY

For well-capitalized individuals to open VWS warehouse outlets. Call 305/458-5800 or write VWS, 3000 W Hallandale Beach Bl., Hallandale, FL 33009.

Dealer Inquiries Welcome

VIDEO WHOLESALERS INC.

39 N.E. 71 St., Miami, FL 33138

- Full Manufacturers Warranty
- Orders shipped in Factory-Sealed cartons within 24 hours
- Multi-Million dollar inventory

FREE PRICE QUOTATIONS AND INFORMATION

Phone Toll-Free

800-327-0337

In Florida (305) 754-2131

VIDEO WHOLESALERS, INC. 39 N. E. 71st Street, Miami, Florida 33138

VISA, MASTER CHARGE, AMERICAN EXPRESS and DINERS CLUB cards honored via Phone or Mail

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

VISA/MASTER CHARGE/AMERICAN EXPRESS/DINERS CLUB NUMBER _____ Exp. Date _____

CALL OR WRITE FOR THE LOWEST PRICES ANYWHERE!

☐ I would like to become a dealer. ☐ Enclosed is \$1 for latest Video catalog.



GET ONE FREE!

Sometimes you wish you'd seen the movie before you bought the cassette—

NOW—
buy one of our X-rated
videocassettes for \$99.95 and you'll
get the Preview video tape cassette
for FREE!

OR—if you don't know which movie
you want, get the Preview video-
cassette for \$59.95, look at it in the
privacy of your home, select the first
movie you want, and that movie will
only cost you \$40.00.

GUARANTEED!

TVX motion pictures on videocassettes are known
around the world. Now you can buy the best TVX
movies by mail. Movies like *Misty Beethoven*, *Barbara
Broadcast*, *Women in Love*, and *The Tale of Tiffany
Lust* for your library.

The Preview cassette has 2 hours of selected
boxoffice hits to let you see exactly what you're
buying.

2-hour
Preview
retail value
\$59.95

- Best of X in TVX
- BEST QUALITY
- BEST PICTURES

VHS or Beta

Baby Love & Beau
Babylon Pink
Barbara Broadcast
Blue Ecstasy in
New York
Budding of Brie
China Girl
Chopstix
Chorus Call
Cry for Cindy
Divine Obsession
Double Exposure
of Holly
Dracula Exotica
Expectations
Feelings
Fiona on Fire
The First Time
Games Women Play
Half the Action
Health Spa
Inside Jennifer Welles



Journey of O
Legend of Lady Blue
Little Orphan Dusty
Marriage & Other
4-Letter Words
Mary! Mary!
Misty Beethoven
Naked Came
the Stranger
Nibblers
October Silk
Oriental Babysitter
Private Afternoons
of Pamela Mann
Portrait of Seduction
P---- Talk
Sensual Encounters
of Every Kind
Seven into Snowy
Sex World
Tale of Tiffany Lust
Women in Love



TELEVISION VIDEO, INC.

© 1981 TVX

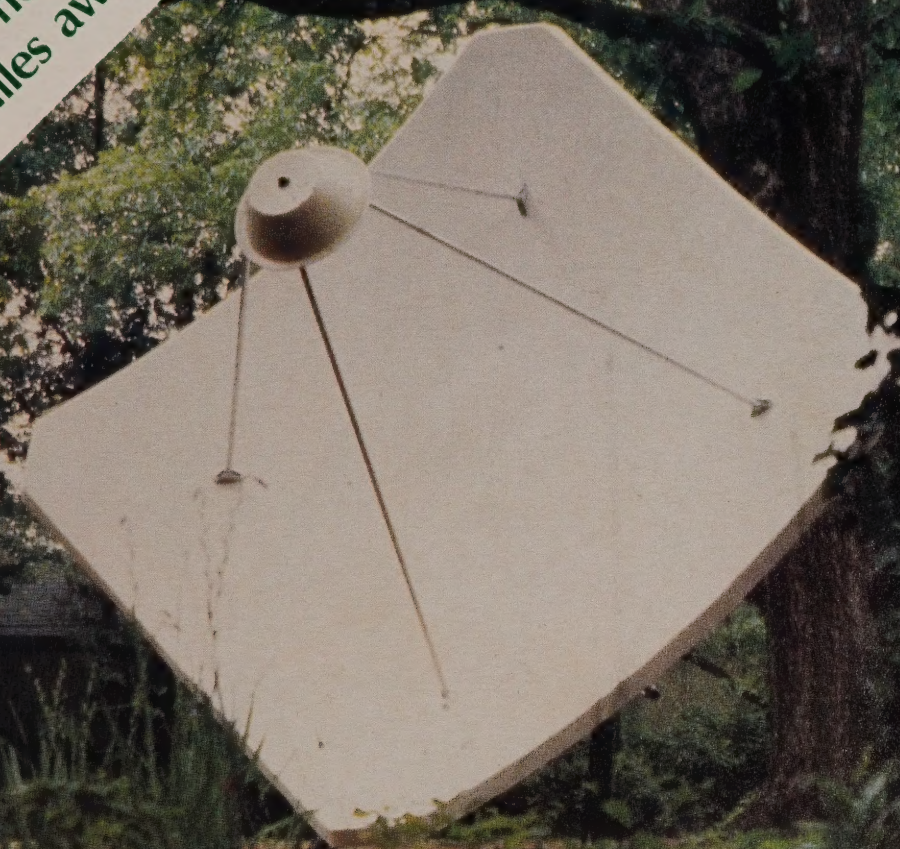
EXCLUSIVE DISTRIBUTORS OF TVX VIDEO CASSETTES

1643 North Cherokee Ave., Hollywood, CA 90028

Toll Free (800) 421-4133 In Calif. (800) 282-5872 (213) 462-6018

Mastercard, VISA, and other major credit cards accepted Circle # 33 on reader service card Buyers must be over 21 years of age

100+ channels on your own T.V.
sports and movies 24 hours a day
from 20,000 miles away.



Birth of a legend

National Microtech, Inc. introduces Apollo^{T.M.} X9 Satellite Antenna \$1995*

National Microtech, Inc. continues to sell more home satellite antenna systems than anyone in the world. Microtech's new Apollo[™] X9 is so far advanced over our competition — in features, performance and cost — that we feel Apollo[™] is destined to become a legend in the satellite industry.

If you are interested in buying or selling Apollo



systems, give us a call today.

Remember, no one sells Apollo[™], but Microtech dealers and distributors. This special introductory offer is good for a limited time only.

*Suggested retail price, LNA and Receiver not included, Optional Remote Satellite Finder \$995.

National Microtech, Inc.

1-800-647-6144

In Mississippi 601-226-8432

Circle #21 on reader service card

**The new video tape so technically advanced,
we can ask the ultimate question:**



Is it live, or is it Memorex?

Come on. You're not trying.
Okay, we'll give you a hint. One is an actual live closed circuit picture. The other is a recording of that live closed circuit picture on New Memorex Video Tape.

So, which is which?

With New Memorex Video Tape the reproduction is so incredibly accurate, one guess is as good as the other.

That's because Memorex uses only high energy Acuform oxide particles.

These needle-shaped magnetic particles are specially designed to pack tightly, evenly and densely. The result: higher chroma output so colors stay their brilliant best. And improved video resolution for exceptionally crisp and clear pictures.

The pictures you put on the tape stay on the tape, thanks to Permapass™

Permapass is our extraordinary binding process. It reduces oxide

shedding for a smoother surface and a recording that stays in place. Play after incredible play.

Only Memorex provides a dustproof, professional vinyl storage album with every VHS cassette.

Memorex gives your valuable recordings extra protection, where most others provide only a simple cardboard sleeve.

So put your next recording on New Memorex Video Tape. You'll find the Memorex picture on your screen as remarkably

true-to-life as the Memorex picture on this page.

Still don't know which is which?

Look at the bottom of this page. Then look up your Memorex video dealer.



NEW MEMOREX VIDEO

© 1981. Memorex Corporation, Santa Clara, CA 95052, U.S.A.



If you guessed the picture on the right, you're wrong. The exceptionally crisp, clear picture on the left is Memorex.

Circle #27 on reader service card